



Analyzing coastal planning in Galicia, Spain

Natural heritage degradation by peri-urban sprawl
in Ria de Pontevedra

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Executive summary

Galicia, the Spanish region located at the north-western corner of the Iberian Peninsula, has experienced increasing developments in accessibility, housing and facilities during past decades. Therefore, there has occurred a change in developing trends led by the stimulation of infrastructure, industry and tourism sectors. Recently, the south-west of Galicia, where Ria de Pontevedra is, became a competitive summer destination for national tourism, which empowered construction of housing developments as profitable source of wealth. Nowadays, the continuation of this rhythm of growth along the coastline may threaten the nature value of the region. Massive building risks biodiversity and it reflects on autochthonous landscape. Apart from environmental impacts, there are economic reasons to preserve native Natural Heritage (NH), since it constitutes the main attractiveness for tourism.

The present paper proposes a theoretical framework aimed to evaluate the degree of sustainability of Galician planning model. Along with this discussion arise other concepts related to the environmental side of sustainable development, such as NH and urban sprawl.

The methodology applied to assess environmental regulation together with urban planning includes content analysis of various reports and papers on the matter, their historical review, and consultation to relevant stakeholders in order to clarify the background of the problem and ask for their opinions and recommendations.

All data collected, assessed under the scope of our theoretical framework, showed how Galician planning is still far away from achieving sustainability. The study concludes that integration of policies has to be reflected in practice through local governments' commitment and societal involvement in order to cope with ongoing environmental degradation.

Suggestions made to achieve this objective are the implementation of a more participative planning model through effective Social Impact Analysis (SIA), harmonizing new developments with NH conservation through strategic plans for the whole region, a change of local financial models towards less dependency of building profits, urging the municipalities to enact their urban plans through deadlines for its approval, and a stricter control of law compliance by making responsible authorities accountant for their own management.

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1. Introduction

When referring to human influence on Earth, inevitably coming to our mind are the series of changes occurred since Industrial Revolution, when mankind enlarged its power of producing goods and transforming landscapes for commerce. Throughout the years, the market became the engine of the economy and, for years, the only basis for decisions. Wealth became a consequence of profit as well as financial revenues the first reason to carry out any enterprise, then the first priority of the nations. We could set a point of inflection at that moment, when private individual interests overtook the general interests of society for the sake of capitalism. But the supposed freedom brought by the capitalism turned soon into competitiveness, accelerating a process of development which had been very slow so far, compared to the new growing rhythm. Through decades, human beings in the first world forgot, or sometimes ignored, their activities were affecting their environment more and more. In fact, environmentalism is a very recent concern, and even now we cannot assure yet if it is well-implemented in citizenship concerns. The over-scaled growth during past century, including mistakes and (much more publicized) achievements, has established on people an almighty conception of the mankind, which is far from being true. The truth is now that we realised we are living on a finite planet, we should take care of it.

The interaction of what was given to us with human behaviour produces different kinds of outcomes which deserve our attention. Mankind's growing influence on the environment was recognized as long ago as 1873, when the Italian geologist Antonio Stoppani spoke about a "new telluric force which in power and universality may be compared to the greater forces of earth" referring to the *anthropozoic era* (Crutzen, 2002). Indeed we are now living on a human dominated planet, after millennia of nature's domination. Our power to change the environment increased dramatically last centuries, and keeps growing faster and faster. Nowadays it is estimated between one third and one half of the planet's land is altered by humans (Vitousek et al. 2007). These numbers are highly uncertain, but the fact they are large is for sure. The growth of the human population, and growth in the resource base used by humanity, is maintained by a suite of human enterprises such as agriculture, industry, fishing, and international commerce. These enterprises transform the land surface (through cropping, forestry, building...), alter the biogeochemical cycles, add or remove species in most of Earth's ecosystems. Many of these ongoing changes are substantial and reasonably well quantified. The use of land to yield goods and services, according to Vitousek et al. (2007), represents the most substantial human alteration of the Earth system.

The degree of alteration of different world areas depends on a variety of factors. While certain sites have been exploited intensely since the beginning of the human history due to the ease to get resources such as water, iron or gold, some other places remained barely altered for centuries, since their physical or geographic characteristics made more difficult the exploitation resources than in other places. However, as civilization evolves, resources become scarcer and techniques to take advantage of them become more efficient. That evolution makes humans move their activities from certain sites to others, either when the resources are over, or the profit is just higher. This paper deals with the availability of land as the resource under pressure, which was over-exploited in the Spanish coast mainly by tourism-oriented building. The pressure of urbanization has affected for decades surrounding natural environment, an important resource on which tourism depends. The present study starts comparing the current state of land in the

Mediterranean coast with the situation in Galicia, a region barely altered until a few decades ago, when tourism flow increased later as a result of a series of developments led by improvements in its communications and economy.

1.1. Geographical context

Galicia is the Spanish region located at the north-western corner of the Iberian Peninsula (see Figure 1). It is rich in natural resources thanks to its geographical location, rainy climate and rugged relief. It is also worth to mention Galician coastline accounts for over 1,200 kilometres (Xunta de Galicia, 2012). The variety of climates present in Galicia produces oceanic, mountain, and Mediterranean environments, and numerous micro-climates which favour a wide range of different ecosystems result of both natural evolution plus the way of exploiting resources. Especially significant (and subject of the paper) are the ecosystems along the coastline. The river mouths are called *Rias*, due to the great river waterbed width, running along tens of kilometres. This special feature, added the repository backfilling of sand during thousands of years, creates numerous beaches among forest areas which sprinkle the coastline with unique, invaluable natural redoubts.

In fact, the Galician network of protected natural spaces represents more than 12% its total surface (Xunta de Galicia, 2012), meaning natural areas with special protection due to their legal status at regional, state or European level. Although numerous sites enjoy those privileges, the present study focuses on areas which, not being awarded with the official status, hoard great biologic richness and visual attractiveness, which add value and cohesion to the whole region.

The site under study is Ria of Pontevedra, name given to the river Lérez mouth which spans from Pontevedra, the province capital city, to the open sea, where is located part of the only protected Galician site at national level: Ons archipelago, part of the *National Park of Atlantic Islands* (see Figure 2). The nomination Ria de Pontevedra includes the southern coast of the municipalities of O Grove, Sanxenxo and Poio, plus

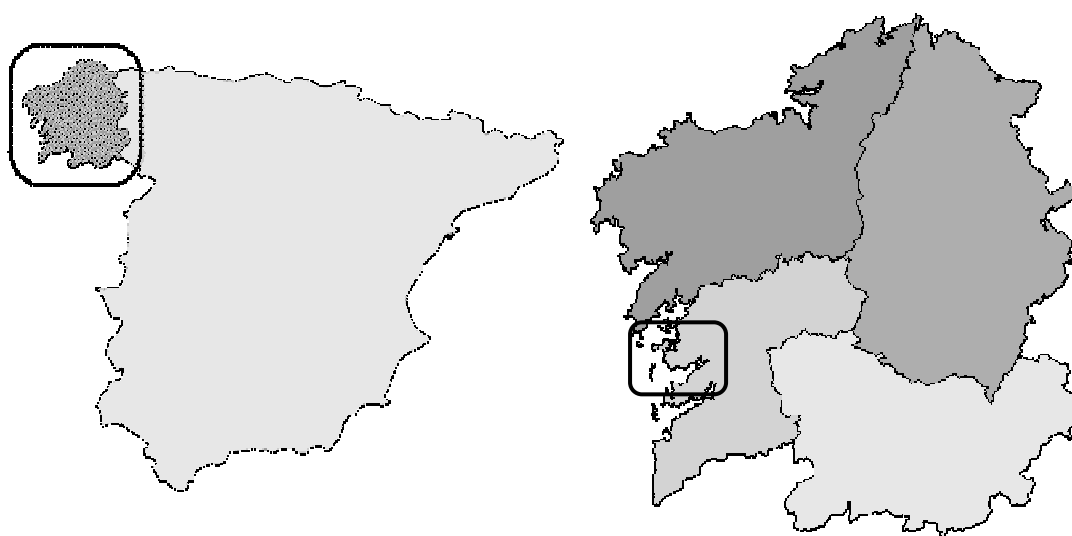


Figure 1. Location of Galicia in Spain (left) and Ria de Pontevedra in Galicia (right)

the northern coast of the municipalities of Marín, Bueu and Cangas. Besides the mentioned National Park, the Ria hosts four more officially protected areas: Costa da Vela, Cabo Udra, the Ons-O Grove complex, and the wetland Umia-O Grove, which includes A Lanzada beach, Carreirón Cape and Bodeira Lagoon, as shown in Figure 2. These numerous kilometres of coastline, caused by the craggy orography, make easy to understand that the ‘officially unrecognized’ zones surrounding the protected ones also host valuable natural resources. That is why present research focuses on Natural Heritage (NH) integrated within rural and peri-urban lands allocated next to these legally recognized sites, which share plenty of their characteristics. The concept of NH and its interpretation will be discussed throughout next chapters.

1.2. Background: The problem

The concern of our research is the effects of the extensive urbanisation that has taken place in Spain during the past few decades. The impact of uncontrolled development of the coastline, led by economic interest has been subject of complaint of many individual citizens and organizations. Moreover it has been discussed in the European Parliament

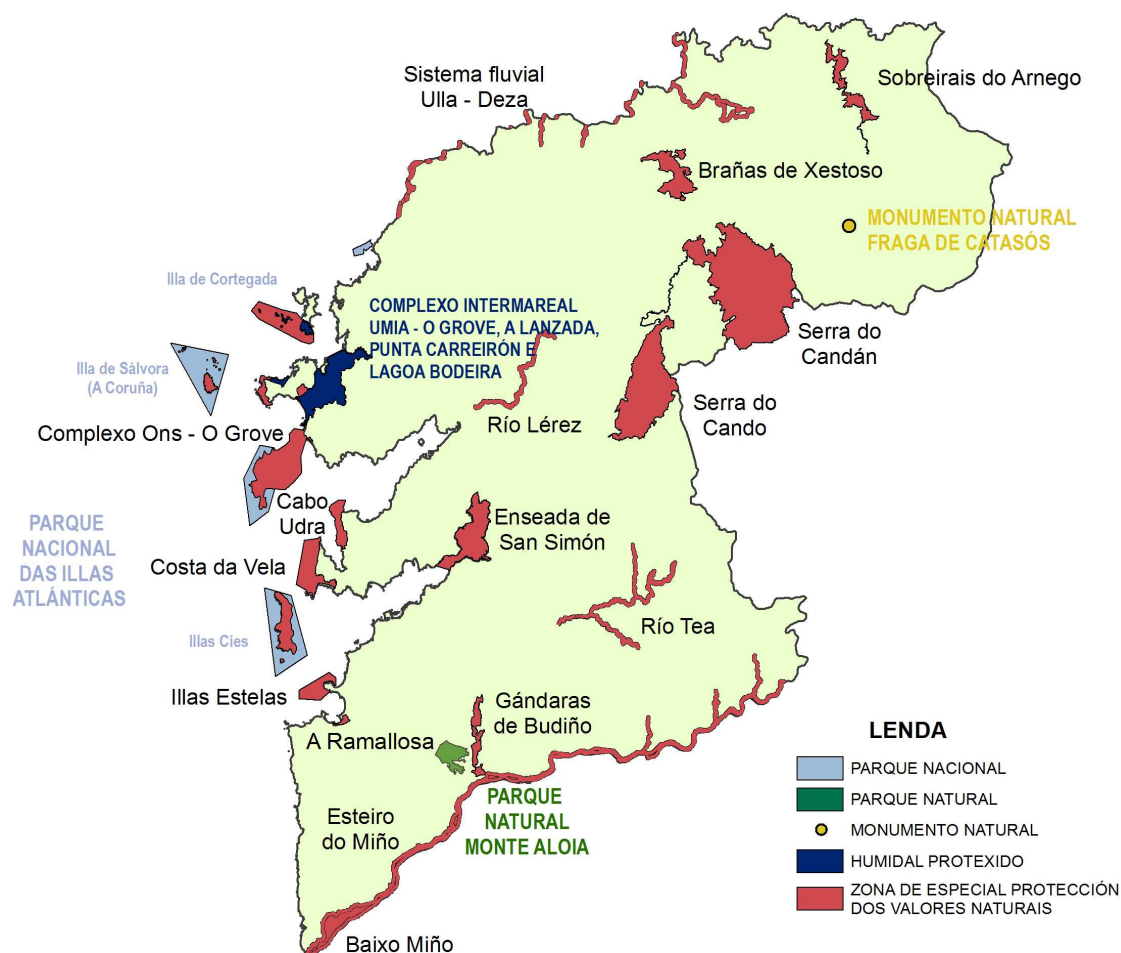


Figure 2. Protected natural sites in Pontevedra (Bas Ventín et al. 2012)

through the *Auken Report*. This report, presented by Margrete Auken¹, states the fact that more cement and concrete have been used to build homes in Spain during the last decade than in France, Germany and the UK together, existing ‘a clear risk of a serious breach by a Member State of the values on which the Union is founded’ (Auken, 2009). The document, which will be discussed in a separate chapter together with *1988 Coastal Law*, denounces how ‘1988 Coastal Law had been neglected for many years during which time extensive environmental damage was done to coastal areas in Spain; whereas even the current instructions do not provide for clear implementing measures to be followed by the local and regional authorities involved’. Besides, ‘every level of authority, from central to autonomous and local, has been responsible for setting in motion a model for unsustainable development that has had extremely serious environmental consequences, as well as economic and social repercussions. It accuses ‘certain corrupt local officials who, by their actions, have facilitated unprecedented and unregulated urban developments to the detriment of the rights of EU citizens, thereby damaging irretrievably the biodiversity and environmental integrity of many regions of Spain’. The Galician coast has not remained uninvolved in this kind of practices, although they were much more noticeable in the eastern part of the country, where the so-called “concrete wall” was set all along the Mediterranean coastline. The difference between both areas is money and timing: meanwhile the East had started to develop housing facilities since the sixties as a result of the profitable international tourism, Galicia remained almost untouched by new developments until the decade of 1970, when the first abuses slowly began to occur (Castro Martínez & Otero Iglesias, 2007). Since few years ago, some corruption scandals begin now to be uncovered; for instance in the city of Marbella (Alli Aranguren, 2008) and the financial crisis is limiting the investments on new housing developments. However, the mistaken policy allowing these abuses has to be corrected in order to avoid future analogue situations, as EU Petitions Committee argues (Auken, 2009). In particular, Galician citizenship has even coined a new word, *feísmo* (literally translated as “uglyism”), to define the catastrophic building and land-use patterns degrading the environment in any way (Castro Martínez & Otero Iglesias, 2007). Although the regulations in matter of urbanization differ from one region to another and local development depends on municipalities which set their own urban plans independently, the common economic motives made the outcomes similar in both Mediterranean and Atlantic coast.

1.3. Research questions, goals and structure of the paper.

At exploring the events occurred in Spanish planning, especially after the recent break of the financial crisis in 2007, one might ask himself if this kind of planning model can be maintained forever. This question appears to be answered in some cases, most of them along the Mediterranean coast, but it becomes of paramount importance in sites that are still experiencing earlier stages of development, as will be shown later throughout the study. In addition, the dramatic fall that building activity has experienced (Figure 9), as a consequence of the financial crisis that followed the explosion of the ‘housing bubble’ put us on a unique opportunity to rethink current approach in order to improve it, that is why the main research question of the present

¹ Margrete Auken (born on 6th February 1945 in Århus, Denmark) is deputy in the EU Parliament by the Group of the Greens/European Free Alliance. Currently she is also member of the General Assembly (since 1982) and of the Executive Committee (since 2004) of the Danish Society for Nature Conservation.

paper must analyse and evaluate current approach by asking: To what extent this planning model is sustainable? Along with this broad research question, came many others which were already subject of exploratory theoretical considerations by many authors: What determines sustainability? Which theme among sustainability issues is going to be assessed, and how? Once these secondary questions are answered, more concepts appear giving meaning to the study. How to define Natural Heritage degradation? Which are its causes? What is the relationship between NH and urban sprawl? All these attached questions are subject of theoretical considerations that will be explained through the next chapter.

Following chapters keep trying to answer new emerging questions aimed to gain insight about the main theme: How did planning and environmental conservation develop over the last decades? Which are the strengths and weaknesses of current planning model and regulations? How current planning approach could be improved?

The aim of the study is to determine whether the current planning model is sustainable or not, or at least to provide a framework to better assess this tricky concept within the area under study. However, the path followed to achieve this complied with many more answers and goals in the end, as we are about to find out. Table 1 shows the linkage between each chapter and the related question.

Table 1. Research questions

RESEARCH QUESTIONS	RELATED CHAPTERS
What determines sustainability? Which theme among sustainability issues is going to be assessed, and how? How to define Natural Heritage degradation? Which are its causes? What is the relationship between NH and urban sprawl?	2. Theoretical background
How did planning and environmental conservation develop over the last decades? Which are the strengths and weaknesses of current planning model and regulations?	4. Policy review. Outcomes of planning evolution.
To what extent this planning model is sustainable? How could this approach be improved?	5. Discussion & conclusions

2. Theoretical background

2.1. Sustainability

When we ask ourselves about sustainability, we must first make its meaning clear. However, this task is not that easy. For decades many interpretations have been arising, but even nowadays sustainability is still a vague concept. There is no consensus about its definition but, there is indeed general agreement about the validity of the definition provided by the Brundtland Report in 1987, according to which sustainable development is ‘development that meets the needs of the present without compromising

the ability of future generations to meet their own needs’ (World Commission on Environment and Development, 1987). There have been a variety of interpretations for the term sustainability ever since, for instance: ‘Quality of life improvement while respecting ecosystems carrying capacity’ (IUNC et al. 1991), ‘Equal response to environmental and developing needs of present and future generations’ (CNUMAD, 1993), or ‘offering environmental, social and economic basic services to all members of a community, without risking the viability of natural, built and social ecosystems on which the offer of these services depends’ (ICLEI, 1994), or the simple assertion by Jonathon Porritt (1996):

If something is sustainable, it means that you can go on doing it indefinitely. If it isn't, you can't.

As Conelly (2004) points out, there are three mainstream interpretations: The first of these simply ignores the complexity to present the concept as unproblematic but hard to achieve in practice (Agyeman & Tuxworth, 1996). The second response chooses to select a specific interpretation from the range of possible meanings, sometimes justified as an interpretation of the principles in the definition made by the Brundtland Report. The third response sets out to make explicit a particular meaning of the concept by adopting a single analytical axis, denoting the ‘strength’ of commitment to sustainability. A common remarkable characteristic among the approaches is to map the interpretation with simple graphs which make it easier to understand at a first glance. A single analytical axis becomes insufficient for many authors because of its simplicity to define strong positions in opposition to weak, strongly economic positions, as it is argued there is no necessary linkage between societal equity and environmental protection (Conelly, 2004). That is one of the reasons why a widespread scheme sets sustainability balanced between three main pillars: social justice, economic and industrial growth and environmental protection.

The most accepted representation first appeared in the mid 1990s, developed by the International Centre for Local Environmental Initiatives (ICLEI, 1996) and institutionally corroborated later by several bodies, such as the International Union for Conservation of Nature (IUCN, 2005), the UK Department for Education and Skills (Department for Education and Skills, 2005), or the Business Council for Sustainable

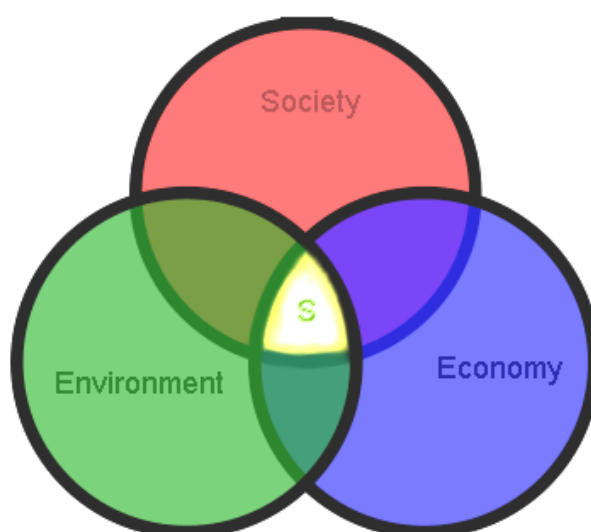


Figure 3. Representation of sustainability (ICLEI 1996)

Development (New Zealand Business Council for Sustainable Development, undated). It includes three interlocking circles for each of these dimensions, setting sustainability in the middle as a way of expressing that a gain of one dimension produces a loss of the others (see Figure 3). Further than the spatial representation, this scheme has become taken-for-granted language in theory, strengthened for instance by Beauregard's definition of sustainability: 'the intersection of environmental protection, social justice and economic growth' (Beauregard, 2003). The overlapping circles have spawned further variations, of which a particularly suggestive example is Campbell's (1996) early space-within-a-triangle figure: the 'planner's triangle' (see Figure 4). Here the three corners of the triangle are given individual meanings as possible standpoints for planners to adopt. The edges between these represent positions between two extreme views, and sustainable development is placed in the centre as the balance towards which planners can strive—unreachable yet present as a guide to which planners can orient themselves (Conelly, 2004). This is the way different policies can be allocated as areas (not points, as no quantitative metric is possible) within the triangle, as a manner of characterizing its orientation in relation with the three main components of sustainability, which occupies the central area.

There is infinity of themes covering each one of these three pillars; this is why the position of a policy has to be placed within an area, not a point. This way, we find numerous aspects of sustainability affecting its measure, which is often carried out by quantitative, as well as qualitative indicators. A complete research on the broad topic of sustainability would require enormous compilation of data covering related issues on society, economy, environment, plus the institutional framework enshrining them. In this study we focus on qualitative environmental issues related to planning, in particular the conservation of Natural Heritage (NH) at coastal areas, essential to preserve the value of the region under study. The first step is to define what NH is.

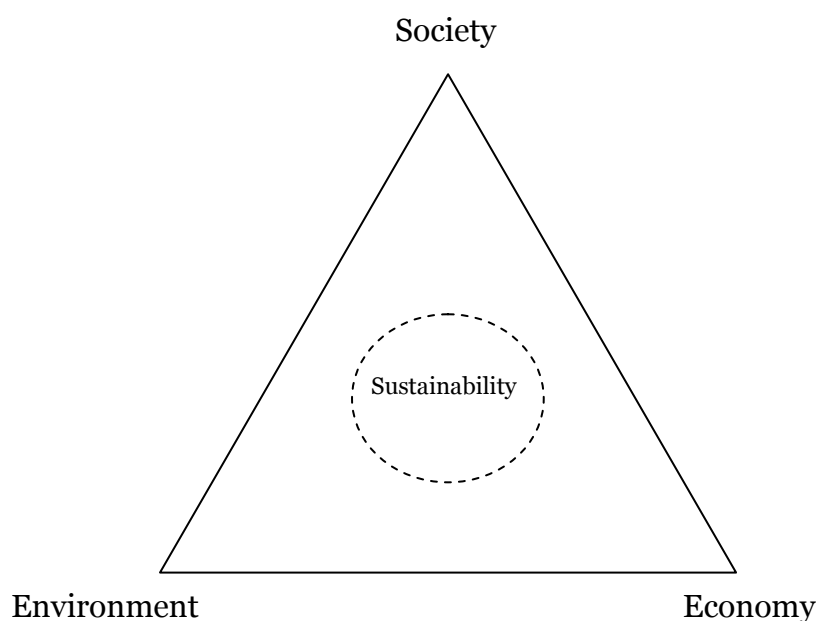


Figure 4. Planners' triangle (Campbell, 1996)

2.2. Natural Heritage

Viewing nature as heritage has a double impact. On the one hand, it associates nature with human beings, as ‘inheritance’ or ‘patrimony’ are highly anthropic terms. On the other, it implies a sense of responsibility of the natural wealth that has been received from our ancestors and that we should intend to leave to our descendants (Howard & Papayannis, 2007). Both natural and anthropogenic factors, defined within a particular spatial and temporal scale, form the concept of NH (see Figure 5). Often in literature NH has been linked to an analogue concept, Cultural Heritage, as human beings are indivisible part of the nature, having much more influence on it than the non-human natural world itself (Whatmore & Thorne, 1998). This is the reason why the European Landscape Convention has not included the word ‘cultural’ in its title, assuming that all European landscapes are indeed cultural, at least in part (Howard & Papayannis, 2007). Key issues and principles in the sustainability debate with reference to natural resources and cultural heritage are the same or very similar, such as: inter-generational and intra-generational justice, non-renewable character of many assets and hence the problem of irreversibility of their destruction or overuse, diversity... (Murzyn-Kupisz, 2010).

Approaching both natural environment and cultural heritage from a sustainable angle means that, apart from material, also non-material benefits derived from them must be taken into account, not only from economic but also social, moral and ethical point of view (Durbin, 2008). Sustainability, in this way, goes in hand of conservation of nature. Herein, ‘conservation’ is a hard concept to define, since NH must necessarily relate to a specific place and time. As ecosystems change continuously and as the human impact upon them also varies, NH has a continuously changing content too. The best approximation to conservation here is creating conditions that allow ecosystems to change, with the least species loss and the least damage to ecosystem processes (Lawton, 1997). Of course, the proper management of human activities may entail that in certain cases the best solution for the conservation of NH would be to exclude human

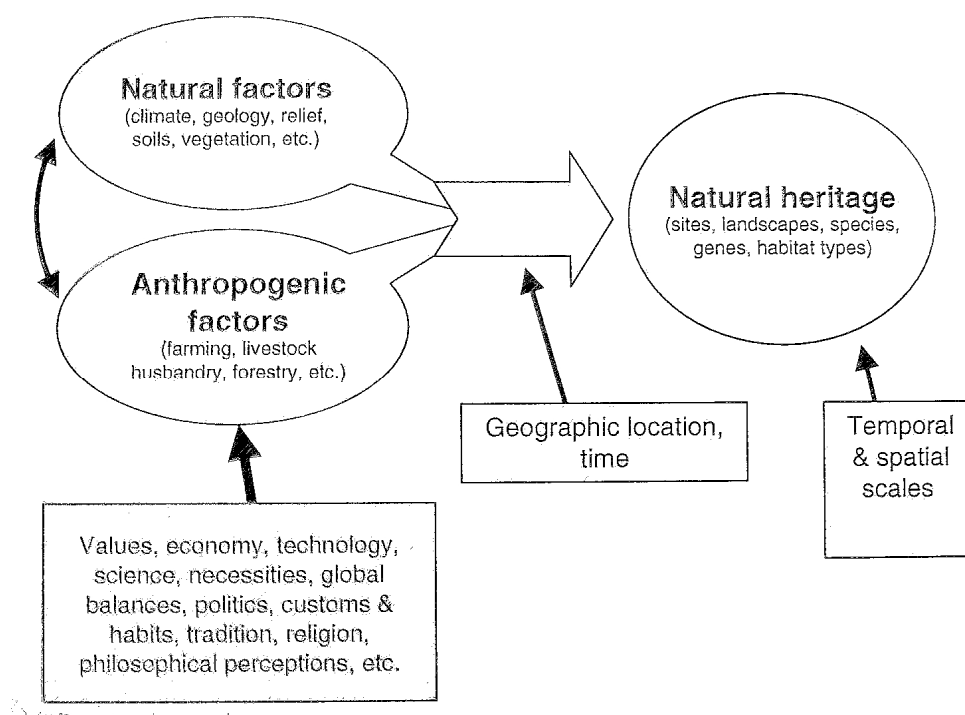


Figure 5. Factors defining Natural Heritage (Howard & Papayannis 2007)

presence completely, in which case we are talking about site ‘protection’. Especially in the dense-populated Mediterranean, absolute exclusion of human activities would avert over-disturbance, but this cannot be the main conservation strategy (Catsadorakis, 2007). What turns into a primary objective is just to control human impact on NH. Massive urbanization along the coastline introduces urban sprawl as matter of special interest.

2.3. Urban sprawl

Human intervention on the environment had always got a clear protagonist: the city. The consumption of space by the mankind made the city the main outcome of the advantageous agglomeration, since the concentration of resources favours faster exchange, profit and development. This great network of concrete and steel implies, as residence for large masses of people, high levels of atmospheric pollution and big amounts of solid and liquid waste. It also leads to local climate peculiarities and cultural miniaturization, all affecting the inhabitants’ life (López Gómez, 1993). After years of hardship caused by the Civil War (1936-1939) Spain began to experience rapid economic recovery based on industry and tourism led by the three *Development Plans* starting in 1959. Developing initiatives took advantage of the privileged climate and geography of Mediterranean coast to build tourism-oriented housing in Costa del Sol, Costa Brava and Balearic Islands. It was a type of development justified by the necessary improvement of tourism sector, ongoing socio-economic expansion and growing needs for cash from municipalities, which got awarded with new competences in urban and environmental planning later on (Lois & Aldrey, 2011). During last decades, examples of these urban developments have proliferated, creating the so-called ‘concrete wall’ along most of the Mediterranean coast, destroying many attractive and fertile lowlands, and bursting into natural protected areas (Bosque Maurel, 2011). The valuable resources and welfare which produced such desirable profit are risked by the lack of control of growing urban sprawl. The slackness concerning environmental issues that characterized first stages of the exploitation continued as the resources were unlimited, although the available coastal land has been decreasing. It seems the planners thought these activities could go on indefinitely, but reality appears to be very different. According to Butler (1980), development and management of tourism destinations responds to an evolving ‘life-cycle’ like any other market product, which traces a line from the initial phase of exploration, to its eventual decline (see Figure 6).

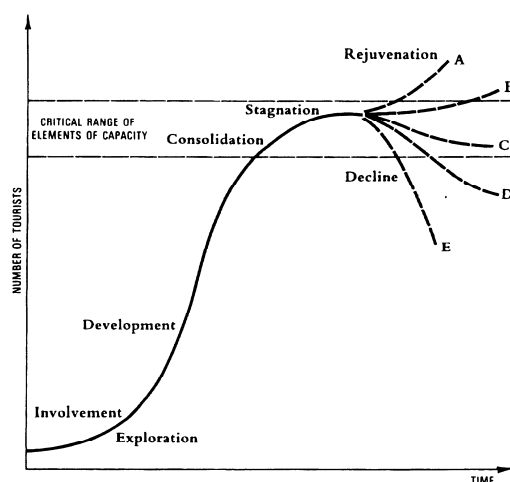


Figure 6. Butler's life-cycle of tourism destinations (Butler, 1980)

This model is contingent with the concept overexploitation of the product (Reid, 2003), the point from which the product benefits stop due to focus on rapid results, led by the unsustainable management of the resource. As Reid states, although the point of the line where the site (the product) is cannot be precisely defined, a comparison with similar cases tell us whether the product is still young or, on the contrary, it reached its developing ceiling. Contrary to some sites along Mediterranean coast, where there is no land available for urbanization anymore, Ria de Pontevedra did not reach its maximum capacity yet since several coastal sites, protected or unprotected, still remain unbuilt, therefore conserving certain environmental value. Many sites in Spanish eastern coast can be located in the final phase of Butler's scheme for tourism destinations, but our case is within the steep-sloped zone where developments are characterized by rapid changes which made some areas have already suffered from damage led by the uncontrolled urbanization process. It is, therefore, still on time to question Galician planning model to guess what kind of future follows the current situation for NH.

However, assuming cities could stand as a degenerate redoubt, independent from environmental restraints, there is a middle term between them and their antagonists, the natural protected areas. However, we refer to unprotected natural sites, which are in the end victims of peri-urban sprawl. A great part of our natural heritage resides outside protected areas (Catsadorakis, 2007), being a clear example the fact that conserving certain species cannot be ensured only within limited spaces, however large these may be. Limiting nature conservation to separate protected areas would be ineffective since they would be too small or unsustainable in the long term (McCracken et al. 1998). Here, the optimization of land use becomes essential to better cope with the interrelationships between nature and city, therefore linking urban planning with environmental conservation.

2.4. Theory overview. Conceptual framework

The aim of the present paper is to study to what extent this planning model is sustainable, that means, to what extent different indicators of environmental protection, social justice and economic growth evolve in harmony, not necessarily being a gain of ones the loss of others. As long as there are plenty of indicators, quantitative as well as qualitative, which define the state of a system in terms of sustainability, we will focus on a selection of them.

There is a great variety of aspects evaluating the degree of environmental protection of certain area. These may include quantitative indicators (such as water and air quality, noise or pollution levels) but also qualitative factors which measure cannot be made through simple observation and registry. One of these factors is the one of the concepts studied in the present paper: NH degradation. Its measure will be done through other non-technical tools like actors' consultation or comparing history, as we will explain in the next chapter. Along within the threefold definition of sustainability, the research identifies the relation between this aspect, belonging to the environmental side of sustainability, and other phenomena pertaining to economic and social sides of the scheme.

On the one hand, the economic activity along the coast of Ria de Pontevedra is closely linked to two main activities: tourism and industry. This statement will be confirmed later on through the study, but has paramount importance to find out the relation

between NH conservation and economic activities related to tourism. The main resources of tourism in the area are nature and land. These two had historically separate laws and regulations for its planning and management, although both of them depend on each other to produce satisfactory outcomes environmentally and economically. For instance, none would expect harvesting the same amount of quality seafood from flooding esplanades if there is no control of wastewater disposal on that area. This example, translated to our case of balancing nature and development led by tourism, produced an outcome called peri-urban sprawl. It extends from small coastal settlements surrounded by rural land along the shoreline, so its scope will be also matter of study.

On the other hand, the societal side of the scheme is directly related to both concepts, since local citizenship is main recipient of the outcomes of both environmental and land planning. The degree of conservation of local NH, as well as the extent to which development is planned, affect the place where people live now and will live in the future. Therefore, it is reasonable to reflect on the degree of participation these recipients hold within the process. These complex relations will be analysed after collecting data through direct consultation to relevant stakeholders, and also reviewing several documents such as the Auken report, the product of the petitions made by European citizens claiming for their rights.

A conceptual framework to locate these theoretical concepts summarizes the chapter and illustrates the relationships between the issues related to the different corners of Campbell's sustainability triangle that we are about to analyse (see Figure 7).

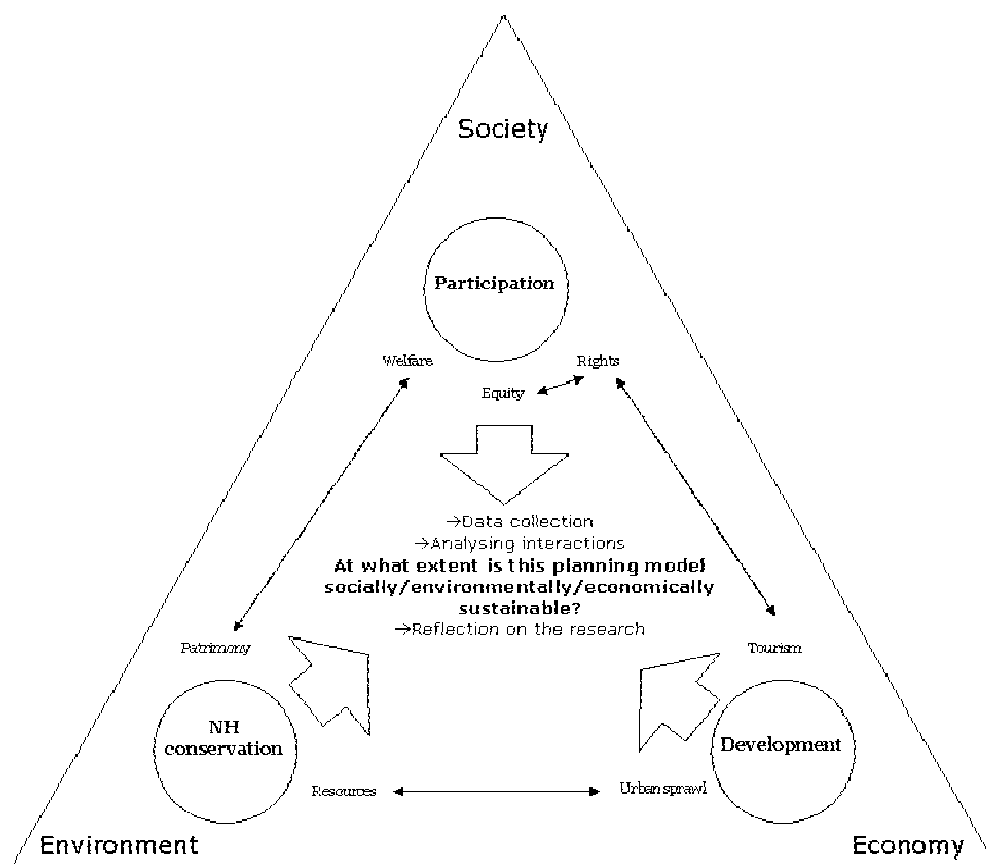


Figure 7. Conceptual framework

3. Research methodology

After having explored the theory to make clear the concepts we analyze, the research clearly acquires an explanatory scope, since its purpose now is to explain the forces causing the phenomenon in question, to identify processes shaping it: How did planning and environmental conservation develop over the last decades? Which are the strengths and weaknesses of current planning model and regulations? Making explicit the explanatory character of the research helps to determine which is the most adequate and efficient strategy. According to Marshall & Rossman (1995), it may consist of history and field studies which, translated to data collection techniques, may include participant observation, in-depth interviews, survey questionnaires and document analysis. In order to answer these questions, the soundest research strategy has been structured as follows:

- Starting with the general Spanish context, the Auken Report is analyzed. This document was issued by the EU as a call for institutional responses to massive urbanization resulted from planning practice, mostly in the Mediterranean coast. Content analysis of this resolution by the European Parliament is carried out in order to address the twofold relationship between Spanish coastal development and sustainability: On the one hand, the effects of local land management on societal issues such as fundamental rights and social equity. On the second hand, the relation between tourism-led development on the environment and its effects on natural resources on which this sort of development is based. Content analysis is characterized by being unobtrusive and nonreactive: It can be conducted without disturbing the setting in any way, and the researcher determines where the greatest emphasis lies after the gathered data (Marshall & Rossman, 1995). The document list a series of arguments, causes, consequences and petitions all relating to the same issue, the one studied throughout this paper. Our interest for this document relies on the request which many European citizens made to the EU due to their situation of institutional defencelessness after having used up the available appealing possibilities within the Spanish national legal framework (Auken, 2009).
- Narrowing the scope to the local level, several studies have taken place. First, a historical review of both planning and environmental regulations affecting the area under study. Together with content analysis of reports, papers and articles on the matter, evolution of successive legal frameworks is outlined and assessed under the scope of sustainable NH conservation and urban planning. Our approach this time will be carried out based on traditional content analysis, which allows researcher to get an objective description (Berelson, 1952). This may address the relation between planning and practice, in particular the local causes at institutional level of peri-urban sprawl in Ria de Pontevedra, and whether conservation of NH has been applied effectively through laws and regulations, or other issues have been prioritised over this one.
- Also at local level, it has been carried out a consultation to stakeholders in order to gain insight about the process complexities. The consultation to relevant actors has been made in two ways: First, a general survey to citizenship in order to collect societal perception about the effects of policy on local NH, and also to find out which aspects of planning and environmental regulations are regarded as inefficient by the local inhabitants. They will be asked about the relation between coastal development, tourism and environment, as well as the legal framework applied on these subjects. Second, there are interesting outcomes

resulted from in-depth interviews to target groups: local authorities (which are regulators, according to the planning competences of municipalities) and representatives of local construction firms (promoters and developers). Surveys often have weaknesses, such as generalization or inaccuracy; that is why interviews with involved experts have been carried out, supplementary. These interviews are conducted with individuals belonging to different parties so the researcher identifies trends in perceptions and opinions, which are revealed through careful, systematic analysis (Krueger, 1988). The spatial scale of the questions was defined within our case study, the coast of Ria de Pontevedra, and their outcome allowed addressing relevant problems concerning the difference between rules and practice at local level. Relationships between development, tourism and NH degradation were specifically addressed, together with remarkable opinions about current public participation status in local planning practice. Format and results of surveys and interviews can be found in the Annexe.

- Finally, findings and lessons arising from the research are summarized and discussed in the last chapter in order to match results and achieve meaningful conclusions.

A visual scheme of the methodology applied is included as a graphic support to outline how research methodology is structured (see Figure 8).

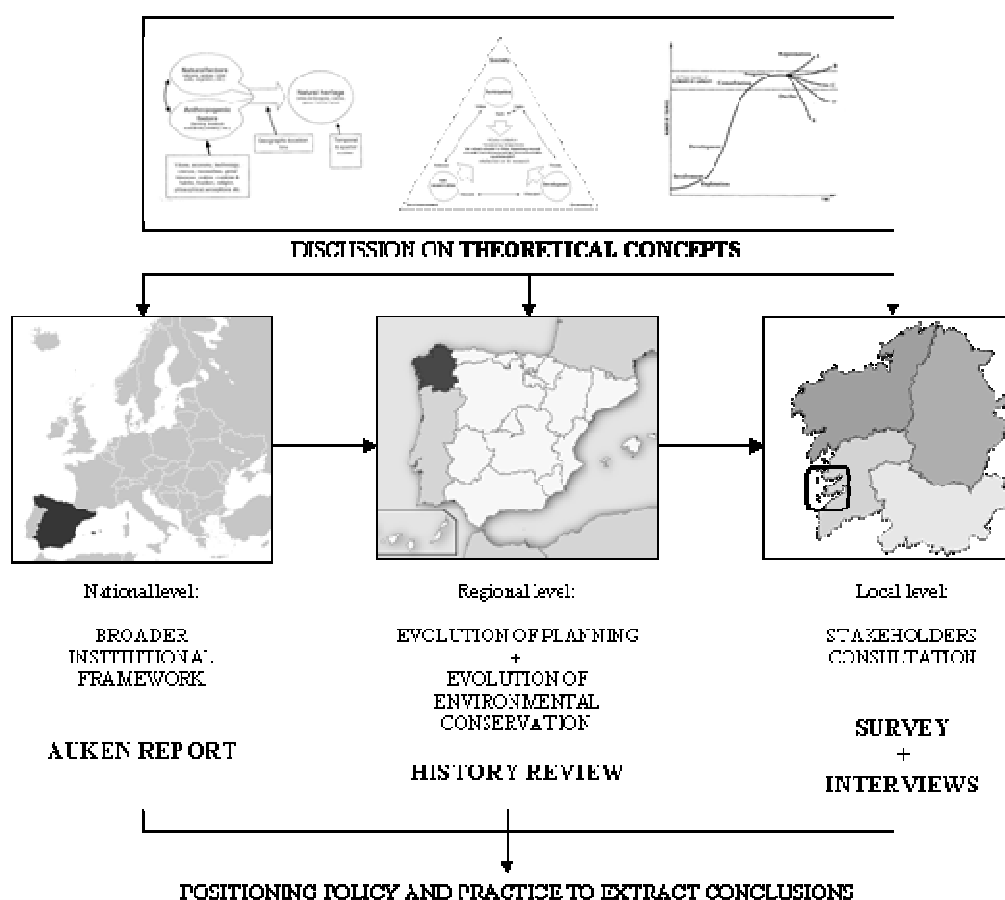


Figure 8. Research structure

4. Policy review. Outcomes of planning evolution

4.1. Spanish context within EU: the Auken Report

In 2009, an important step towards recognizing the need for a change in Spanish coastal planning was the *European Parliament resolution 2008/2248(INI) on the impact of extensive urbanisation in Spain, on individual rights of European citizens, on the environment and on the application of EU law, based upon petitions received*, also called the *Auken Report* making allusion to Margrete Auken, the Danish Member of the European Parliament (MEP) in charge of presenting it. The document collect a series of facts and recommendations denouncing the Spanish coastal planning model, after multiple petitions from individuals and a variety of organizations, such as political parties (PSOE, Los Verdes, IU...), neighbours associations (Benicàssim, Villa Joyosa, San Vincenzo...), environmental organizations (Ecologistas en acción, ANSE, ADENEX...), action groups, private companies and many other independent platforms. All these petitions resulted in investigations carried out by EU representatives on which the report is based. It is worth to mention that before its approval, deputies from European groups in which are embedded the two dominant Spanish parties (right and left wings) presented two attempts of correction. It is also remarkable the desertions of several deputies belonging to these groups who did not agree with their colleagues (EU Parliament, 2009). Both alternative documents were rejected by the majority of the chamber, and the report was finally approved by the Parliament in plenary meeting on 26th March with 349 deputies in favour, 110 votes against and 114 abstentions. The Auken report was the third European Report denouncing planning corrupt practices in Spain. Earlier reports (December 2005 and June 2007) did not threaten to freeze EU funding (Gounev & Ruggiero, 2012). However, this one includes among the recommendations an instance to the EU to withdraw the payment of structural funding to Spain, the largest net recipient of the EU since 1975 (Kölling & Serrano, 2012). However, the non-binding character of these recommendations made them remain a merely political advice with no repercussions in practice so far, further than the official statement by the EU and the resulting public awareness of the problem. The main recommendations of the report are summarized later on.

First of all, we might ask ourselves why this theme became an EU issue, regarding the fact that planning competences is not among European competences. The explanation is answered in the first part of the report, which enumerates a large list of considerations that explain the reasons of the report, beginning with the right to every European citizen to reclaim when individual rights are being violated. Although this might sound too harsh, the Auken Report refers explicitly to practices attempting on fundamental rights:

In Article 6(2) of the EU Treaty the Union commits itself to respect fundamental rights as guaranteed by the European Convention for the Protection of Human Rights and Fundamental Freedoms.
(Auken 2009, p. 3)

In particular, it asserts there is ‘clear risk of serious breach by a Member State’ upon the right to private property:

Article 7 of the Charter of Fundamental Rights of the European Union guarantees the protection of privacy and family life, including the private home of citizens, and whereas Article 8 of the ECHR confers the same rights and clarifies that "[t]here shall be no interference by a public authority with the exercise of this right [...]"

(Auken 2009, p. 3)

There are numerous reasons for this concern. The most common case consists on individual owners are obliged by public authorities to be part of urbanization projects, whether agreeing or disagreeing, to pay abusive building-up taxes (Auken 2009, p. 8) for the sake of a public interest that is never justified (Auken 2009, p. 12). It might be argued that the right to property is not an absolute unbreakable principle, and it is subject to major issues such as the general interest. Regarding this subject, the report states:

Whilst the right to property forms part of the general principles of Community law, it is not an absolute right and must be viewed in relation to its social function and whereas, consequently, its exercise may be restricted, provided that those restrictions in fact correspond to objectives of general interest pursued by the Community and do not constitute a disproportionate and intolerable interference, impairing the very substance of the rights guaranteed [...] The Parliament considers that the obligation to cede legitimately acquired private property without due process and proper compensation and the obligation to pay arbitrary costs for unrequested and often unnecessary infrastructure development constitute a violation of an individual's fundamental rights under the European Court of Human Rights (ECHR) and in the light of the case-law of the ECHR.

(Auken 2009, pp. 4, 5)

Noting that referred public interest is doubtful in these denounced cases, citizenship is left helpless, victim of limitations to their rights set by the local authority. Abuses are committed in the light of Spanish 1988 Coastal Law, which is regarded as inefficient by the European Parliament. According to the words by the Spanish government in 1988, the objective of the law was to 'save the 40% of the coastline which had not been built-up yet' (ABC, 31/03/1988). The Ministry also assured by the time that 'the acquired rights will be respected' and 'buildings with permit, authorization or license will remain', but it was also stated that 'the law does not intend to block building or tourism activities' (ABC, 31/03/1988). Since the Parliament enacted the law, it is accused of many breaches of fundamental rights, due to which it remained unused for 30 years, until now (Auken 2009, p. 19). Among these attributed breaches are the retroactive application (forbidden in Art. 9.3 of the Spanish Constitution), the violation of the property right (Art. 33 of the Spanish Constitution and Art. 17 of the Universal Declaration of Human Rights) and the arbitrary application (Art. 14 of the Spanish Constitution) (Auken 2009, p. 5). In the end, these contradictions led to the inexistence of an effective legal tool to manage the intended sustainable development in Spanish coastal areas. This lack, added to the full power of local authorities in planning competences, produced the outcome which became matter of discussion in the European Parliament.

However, the issue became subject of EU competences not only because this sort of planning violations, but also because deriving issues on environmental assessment, public permits awarding, free competition, capital laundering, water management and waste disposal, or natural habitats protection. As it can be discerned from the nature of these outcomes, the scale of harmful activities is not small, since the responsibility often belongs to large building companies:

The Coastal Law impacts disproportionately on individual property owners who should have their rights fully respected, and at the same time insufficiently on the real perpetrators of coastal destruction, who have in many instances been responsible for excessive urban developments along the coasts, including holiday resorts, and who had good grounds for knowing that they were invariably acting contrary to the provisions of the law in question.

(Auken 2009, p. 5)

In addition, responsibilities are shared between developers, the so-called ‘perpetrators’, and public authorities. Civil servants from state to local level are directly accused of ‘setting in motion a model for unsustainable development that has had extremely serious environmental consequences, as well as economic and social repercussions’ which ‘have damaged the image of Spain and the EU and their interests due to the lax application of urban planning and environmental laws (which have binding legal effect, such as the “provisional approval” of an integrated urban development plan). This was supported by ‘irresponsible regional and local authorities through inadequate and sometimes unjustified legislation, as well as major cases of corruption arising from such abuses’ (Auken 2009, pp. 6, 7, 8). The report also states that sustainability is rarely well-applied in Spanish planning practice, mainly due to the lack of enforcement of the precautionary principle underlying environmental law, besides the frequent ‘misunderstandings’ (as the report defines them) of the objectives set within the Strategic Environmental Impact Assessment Directive. The main legal tool for allowing urbanization is *land reclassification*, through which it is possible to turn the status of a terrain from rural land into land zoned for urbanization, being the only requisite that the local government approves it. This tool, added to the enactment of vague *provisional plans*, leads to excessive ease to get monetary benefit out of it:

Successive fact-finding visits by the Committee on Petitions have shown that these objectives seem to be frequently misunderstood by some local and regional authorities (not just in the coastal regions) when proposing or agreeing to extensive urbanisation programmes; whereas most urbanisation plans contested by petitions involve the reclassification of rural land into land zoned for urbanisation – to the considerable economic benefit of the urbanisation agent and the developer; and whereas there are also many instances of protected land, or land which should be protected because of its sensitive biodiversity, being de-listed and reclassified, or not being listed at all, precisely to allow for urbanisation of the area concerned.

(Auken 2009, p. 8)

Besides the leading nature of tourism on the problem, the report also makes a clear linkage between this mode of development and the consequences for tourism industry, stating that ‘this model of growth also has negative consequences for the tourism sector, since it has a devastating impact on quality tourism given that it destroys local values and encourages excessive urban expansion’ (Auken 2009, p.9). This means the prospective monetary benefit which led coastal urbanization depend on the scale of urbanization; the local values expected to be empowered may suffer from the opposite effect. Among local natural values is the NH of the region, affected by the environmental consequences of excessive urbanization. This is explicitly stated in the document: ‘this is a model that pillages cultural goods and ruins the values and distinct features of identity that are fundamental to Spain's cultural diversity, destroying archaeological sites, buildings and places of cultural interest, as well as the natural environment and landscape surrounding them’ (Auken 2009, p.9).

After the recitals, the report lists a series of recommendations to the EU, to the Spanish government and to regional authorities in order to change the current planning patterns. However, competences in planning still hold by the municipalities, added to the deep crises of the building sector in Spain, plus the non-binding nature of the EU advice produced little result in practice so far, with the exceptions of a few projects stopped by local authorities.

The most powerful warning is the threat of a suspension of European structural funds expressed through the recommendations 27 and 28: ‘The Commission is empowered by Article 91 of Regulation (EC) No 1083/20063 to interrupt the payment of structural funding, and by Article 92 to suspend such funding to a Member State or region concerned, and to establish corrections in relation to projects in receipt of funding which are subsequently deemed not to have fully complied with the rules governing the application of relevant EU legislative acts’. [The Commission] ‘recalls also that Parliament, as the budgetary authority, may also decide to place funding set aside for cohesion policies in the reserve if it considers this necessary in order to persuade a Member State to end serious breaches of the rules and principles which it is obliged to respect either under the Treaty or as a result of the application of EU law, until such time as the problem is resolved’ (Auken 2009, p. 13). These points have remained a warning and did not become effective so far.

Besides this, the most prominent recommendations to the Spanish coastal planning system, regarding the case studied here, are summarized in three points:

1. A call for change upon laws, regulations, legal figures such as urbanization agents and procedures allowing these abuses, especially the 1988 Coastal Law.
2. The immediate ‘suspension and review of all new urbanization plans which do not respect the strict criteria of environmental sustainability and social responsibility and which do not guarantee respect for the rightful ownership of legitimately acquired property, and to halt and cancel all existing developments where criteria laid down in EU law, notably as regards the award of urbanisation contracts and compliance with provisions relating to water and environment, have not been respected or applied’ (Auken 2009, pp. 9, 10). Lately there have arisen some examples proving that this point is currently being carried out by a number of municipalities, especially in coastal areas with highest tourism pressure.
3. The need for encouraging public consultation. The report mentions numerous times this point, promoting the creation of mechanisms allowing citizenship to take active part

of urbanization processes, stressing the need for transparency and the obligation to deliver clear information to the citizens. In fact, it recalls ‘that the Environmental Impact Assessment Directive and the Strategic Environmental Impact Assessment Directive impose an obligation to consult the public concerned at a stage when plans are being established and drawn up’ (Auken 2009, p. 13).

The approval of the Auken Report by the European Parliament was a capital step forward intended to change the planning paradigm in Spain. However, currently functioning system, well-established in Spain for decades, seems difficult to comply with the lines suggested by the report on a short term. Apart from EU, also a variety of bodies lately expressed their concerns through documents denouncing the problem. Examples are the yearly report *Destrucción a toda costa*, translated as *Destruction at any cost/coast*, which keeps being edited every year by Greenpeace Spain; the reports on transparency indexes by *Transparency International* at national, regional, provincial and local level; the variety of articles and resources compiling cases of trials related to coastal urbanisation by *Ecologistas en Acción*; the annual reports and help provided by national and regional Ombudsmen; and many others by individual and collective bodies.

4.2. Local history review: Planning and environmental regulations through time

Galicia, due to its situation within the Spanish territory, has always been seen as a perfectly defined region. Isolation due to the lack of accessibility has always been seen as a problem, as a consequence of its geographical location. This fact led, through the centuries, to certain developing delay in comparison with the rest of Spain. It has not been until the end of the Francoist period in 1975 that the region experienced a series of developments that empowered communications, hence its importance within the national context (Lois González & Aldrey Vázquez, 2011). The main axis of development spans from the northern coast in A Coruña to the southern city of Vigo, the so-called Atlantic Axis, which includes five of the seven Galician principal cities and is responsible for 75% of the regional GDP (Lois & Aldrey, 2011). There is an imbalance between the rural countryside in eastern inland and this mentioned urban corridor in the western coast. Regional urbanization rate is high though and it keeps increasing, since Galicia is experiencing an intense rural exodus in favour of cities’ population (Precedo Ledo et al. 2008). And this imbalance keeps growing. The increase of population in Pontevedra, capital of the province and the second most growing city, is different from the rest of Galician cities, since the growth does not increase the capital city population, but the surrounding areas. Peri-urban sprawl keeps expanding, creating a conurbation all over the coast in Ria the Pontevedra due to residential pressure and tourism, as occurs in Sanxenxo municipality. Sanxenxo is the soundest example of this sort of development: Town census counts less than 20,000 inhabitants (Concello de Sanxenxo, 2009), but in summer it becomes a city which population is six times bigger (La Voz de Galicia, 2010), even more than twice the capital of the province, Pontevedra, which currently hosts 82400 people (IGE, 2011). The need for rapid growth to get over the economic delay has historically prioritized development over the need for a planning model and environmental conservation, as we are about to review. By way of summary outlining the following lines, a quantitative list of relevant events and

landmarks concerning planning and environmental laws since 1950 is included in Table 2 (p. 27).

4.2.1. Before 1960

In the mid XXth Century, Spain started recovering from the harsh years which had mistreated the country social and economically during the Spanish Civil War (1936-1939) and following postwar period. The establishment of the new mode of governance led to simple policies for economic development and increase of welfare, whilst neglecting more comprehensive urban planning. In terms of environmental protection, the progresses achieved until the 1030s, such as the creation of National Parks at a state level, were frustrated because of the outbreak of the Civil War. Whereas food rationing lasted until 1952, the decade of 1940 obviated more “trivial” issues, like environmental protection. In fact, in 1944 the Superior Council of Hunting and Fluvial Fishing, which name illustrates its mission, abolished any protection of natural spaces (Bas Ventín et al. 2012).

It was not until 1959, with the *National Plan of Economic Stabilization*, that the economy began to be boosted as a consequence of internal and external liberalization that the country was experiencing. Since the end of the decade of 1950 some stimulations and industry investments were introduced, which made the sixties be known in the Spanish History as a decade of development (Fuentes Quintana, 1988). In particular, in Ria de Pontevedra the year 1957 stated a milestone in local industry: the National Ministry of Industry (INI) created the National Company of Cellulose of Pontevedra (ENCE), which started producing 30,000 tons of paper per year on terrain next to the southern coast of the Ria, close to the neighbour village of Marin. The only issue concerning planning that was tackled during this period was the delimitation of Spanish metropolitan areas by the General Management of Urbanism in 1960, identifying two of them in Galicia: A Coruña and Vigo (Precedo Ledo, 1987). Since Pontevedra was excluded from Vigo’s metropolitan area, this had no impact on local planning.

4.2.2. Period 1960-1980

During the following years local industry kept evolving thanks to three Development Plans in 1964, 1968 and 1972, which produced great industrial stimulation. These plans also led, later on, to real urban planning policy with the formulation of the *Territorial Plan*, supported by the new Zoning Law enacted in 1976, but ended up in just a project. Actual developments during this period were the creation of the electro-chemical factory ELNOSA in 1968, and the approval of the Plan of Accesses of 1970, which meant a great step towards improving the communication with the rest of Spanish territory. Building these new road links during the following years solved to a great extent the old problem of isolation that Galicia, due to natural barriers, had been suffering from (Nárdiz Ortiz, 1992). The creation of the *Atlantic Highway* between A Coruña and Vigo, together with the improvement of external accessibility, led to an increasing of both internal and external road traffic in Galicia that boosted local tourism, especially in the southern areas.

While industrial activities and economy kept growing, the state of environmental neglect continued standstill until 1972, when the National Institute for the Conservation of Nature (ICONA) was founded, substituting the General Direction of Woodlands,

Hunting and Fluvial Fishing. It established a new nomination for protected areas, the Reserve, which has hardly been used in practice (Bas Ventín et al. 2012). In 1975 the *Law of Protected Natural Spaces* was enacted, and after two years its regulation became effective. According to this law, in the province of Pontevedra two sites were declared *Natural Parks*: Aloia Mountain and Cies Islands. The *Natural Park* status counts with a special advantage: the allowance to carry on developments together with NH conservation measures, being more suitable for areas subject of high anthropic pressure (Leehart, 1989). The *Third Development Plan (1972)* chose Galicia as one of the preferential territories to give expression to the so-called “regional development”. As a result, the *Galician Great Area of Industrial Expansion* was created in 1975 by the Ministry of Industry in an attempt to transfer to the regional government the competences previously given to the cities, the so-called *development poles*. All advances achieved in urban planning got lost with the end of Franco’s dictatorship in 1975 and the following transition towards the establishment of democracy, resulting in a thorough institutional re-organization (Lois & Aldrey, 2011).

4.2.3. Period 1980-2000

During the early eighties, the new democratic regime built a Parliament in which consensus was a common way to tackle national issues, and where regional concerns and interests were subject of attention. This caused that many competences were transferred to the autonomous regions. Planning and environmental protection were among them; in the case of Galicia, this occurred in 1983 and 1984, respectively. The only environmental figure that remained national competence was the National Park, although until 1997, when central state shared some of its competences with the autonomous regions. During this period the 1988 Coastal Law was enacted at national level, with no subsequent effectiveness at protecting the coast, as we already have mentioned in the chapter 4.1. Later on, the adaptation to EU environmental standards in 1995 set binding Environmental Impact Assessment (EIA) for projects of great magnitude, though little impact on practice could be noticed due again to the laxity on its application. As the interviewees clarified, the law may exist, but it is rarely complied.

However, planning policy experienced numerous changes during this period. The Galician adaptation in 1985 to the Spanish 1976 Zoning Law, the *LASGA*, was one of the quickest among Spanish regions, being approved in 1985 though. It was largely criticised for being too slack and for allowing regularization of illegal projects which had been carried out before (Rodríguez González, 1999). However, according to Rodríguez González, some of the points took root, thanks to its ease to adapt to this complex reality. For instance the denomination *Land of Rural Town* allowed controlled growth of small settlements while maintained unity and compactness of the original site. Later on, making use of the acquired competences in urban planning, the regional government enacted its own Galician Zoning Law (*Ley 10/1995 de Ordenación del Territorio de Galicia*). However, these new rules revealed unable to slow down the ongoing uncontrolled urbanization and after a few years this became a serious problem (Lois & Aldrey, 2011).

4.2.4. Period 2000-2012

Despite Galicia had hold competences to regulate environmental conservation since 1984, it was not until 2001 that the region developed its own law: the *Law 9/2001 on conservation of nature*, which included the principles from Rio Summit in 1992. The

result of its application was the list of protected areas shown in Figure 2. Several modifications and new laws were approved during this period: The *Law of Natural Heritage and Biodiversity* in 2007, and the *Decree for Environmental Incidence Assessment* and the *Law for Galician Landscape Protection* in 2008. In addition, new proposals for NH conservation are being studied in the present day, like the creation of one Biosphere Reserve within the Rias Baixas (the name given to the three southern Rias), where Ria de Pontevedra is included. All these initiatives are aimed to achieve sustainable development in the context of high anthropic pressure existing in this area; however, no reflection in practice could be noticed yet, as is suggested by Bas Ventín et al. (2012).

Concerning urban planning, numerous initiatives and major changes took place during last decade. An important influence is the enactment on 30th December of the *Law 9/2002 of Urban Planning and Protection of Rural Land*, which strengthened the legal framework concerning urban planning matters and introduced harsh requirements for building in rural areas, besides some measures oriented to landscape protection. The introduction of new local planning figures, together with the inexistence of deadlines to comply with their implementation made that many municipalities did not adapt their zoning plans to this new law yet. Moreover, nowadays five different kinds of urban plans co-exist in Galician municipalities resulting from continuous changes in regulation: Local plans from obsolete planning acts are mixed with modern *PGOMs* (*Plan General de Ordenación Municipal*, Zoning Municipal Plan) established by the law 9/2002 on 30th December; even a great part of them still has not approved any plan at all (Lois & Aldrey, 2011). Nevertheless, the regional Parliament has not stopped modifying regulations and institutions. The result is the co-existence of multiple binding procedures required for projects, creating a too complex form of bureaucracy. As the interviewees revealed, these duties are very hard to comply within a reasonable time; that is why the illegal way is usually taken.

In fact, multiple legal changes followed the approval of the law 9/2002, partly due to the alternation of different parties in power: The first modification was approved already in 2004; in 2007, a set of *Urgent Measures for Coastal Planning* paralyzed ongoing works up to 500 m far away from the seriously threatened coastline of Ria de Pontevedra; in 2008, with a different party in the government, another set of *Urgent Measures for Housing and Land Planning* was enacted; in 2010, more *Urgent Measures to Modify the 2002 Law* practically cancelled previous laws, allowing irregular projects while annulling limitations to coastal construction (Lois & Aldrey, 2011). As an outcome of these continuous changes, the interviewees assert there is no way to know what the central government requires, nor stability to guarantee the legality of a project for a long time.

Perhaps the most promising steps towards regularizing planning practice were taken last years: the creation of the Agency for Protection of Legality in Urbanism (APLU) in 2008 and the approval of the Zoning Directive *Directrices de Ordenación del Territorio* (DOT) in 2011 after decades of delay. The former was born as an independent body to give advice, assess and correct irregularities in local planning practice. The fact that municipalities are not obliged to abide by APLU made that only 18% of them have joined so far (57 out of 315); the vast majority are inland and none of them in Ria de Pontevedra (Xunta de Galicia, 2012). However, since the institution is already

implemented, it might lead to further action in the future in coastal municipalities where economic interests related to building are higher than inland.

Apart from current inexistence of APLU competences on coastal municipalities, the DOT does constitute a complete planning act with many more consequences for coastal planning. Its approval delayed for fifteen years and finally took place in 2011. The aim of the new directive is to establish a general framework for urban planning criteria and orientation for social and economic activities by public and private agents. Two planning instruments were proposed, already defined in the LASGA in 1985, which implementation depended on the DOT enactment: the Integrated Territorial Plans (PTI). Among them is the Coastal Planning Act *Plan de Ordenación del Litoral* (POL), a set of rules which aimed to implement a comprehensive support on coastal planning to normalize building activity and NH conservation in Galician coast. However, according to Lois & Aldrey (2011), its simultaneous approval with the DOT lacked of consensus between parties, a necessary requirement for a comprehensive text with such multiple implications. In addition, the opposition and some interested associations argue that the POL still holds wide inaccuracies which may allow activities with great environmental impact on protected sites, especially the reviled building next to the coastline (Lois & Aldrey, 2011).

After having experienced a series of continuous changes in regulation, it seems planning inconsistency has come to an end with the long-awaited approval of the DOT, together with specific coastal directive, the POL. All different regulations concerning environment and coastal planning seem to have been integrated in a comprehensive instrument to harmonize the jungle of rules that gave rise to illegal building so far. At this moment, the challenge relies on local governments, since they still hold the competences for their own planning. Municipalities must comply with the law adapting PGOMs to this new policy (or, as in many cases, just approving them) in order to reflect in practice the recent advances implemented by the regional government. Herein we need to note that by 2010 less than half of Galician municipalities had enacted an integrated plan (Galiciaé, 2010), and none of the municipalities in Ria de Pontevedra had one yet. However, since 2008 the process seemed to accelerate slightly: during 2009 and 2010 there have been approved 29 PGOM, that is, 9% of Galician municipalities. However, the inexistence of deadlines for its approval, the continuous changes in municipal governments, the lack of agreement between parties and, sometimes, economic interests make these processes endless. In Ria de Pontevedra, like in many other sites, the situation is still standing-by. The municipalities of Poio and O Grove are still in process of enacting its PGOM, although the part related to Strategic Environmental Assessment (SEA) were already approved in 2010 and 2011, respectively (Xunta de Galicia, 2012). Sanxenxo counts with a PGOM issued in 2003 which is not fully adapted to new regulation. Marin still relies on oldest rules set in 1978, while Bueu and Cangas planning are also based on old regulation from the eighties and the nineties, respectively (Xunta de Galicia, 2012). It is clear that more local involvement is essential to finally achieve a homogeneous coastal planning in Galicia in general, and in Ria de Pontevedra in particular.

Table 2. Landmarks in planning and environmental regulation 1950-2012

year	PLANNING	ENVIRONMENT	year
1959	<i>Plan de estabilización</i> (nivel nacional)	<i>Ley de Montes</i> (nivel nacional)	1957
1960	División áreas metropolitanas (nivel nacional)		
1964	<i>Plan de Desarrollo I</i> (nivel nacional)		
1968	<i>Plan de Desarrollo II</i> (nivel nacional)		
1970	<i>Plan de Accesos</i> de Galicia		
1972	<i>Plan de Desarrollo III</i> (nivel nacional)	Creación del <i>Instituto para la Conservación de la Naturaleza</i> (ICONA)	1972
		<i>Ley de Espacios Naturales Protegidos</i> (nivel nacional)	1975
1976	<i>Ley del Suelo</i> (nivel nacional)		
1983	Transferencia de competencias a Galicia		
1985	Adaptación regional LASGA	Transferencia de competencias a Galicia	1984
		Registro General de Espacios Naturales de Galicia	1989
1995	<i>Lei de Ordenación do territorio</i>	Adaptación a directiva europea de EIA	1995
1997	<i>Lei do Solo de Galicia</i>		
1997	Proyecto de ordenación del medio rural		
		<i>Lei de Conservación da Natureza</i>	2001
2002	<i>Lei de Ordenación Urbanística e Protección do medio Rural de Galicia</i>		
2004	Modificación a la Ley de 2002		
2007	<i>Lei de medidas urgentes en materia de ordenación do territorio e litoral</i>	<i>Ley de Patrimonio Natural y Biodiversidad</i>	2007
2008	<i>Lei de medidas urgentes de ordenación da vivenda e do solo</i>	<i>Lei de Protección da Paisaxe Galega</i>	2008
2008	Creación de la <i>Agencia para la Protección de la Legalidad Urbanística</i> (APLU)	<i>Decreto sobre Evaluación de Incidencia Ambiental</i>	2008
2010	Ley de medidas urgentes de modificación de la Ley de 2002		
2011		<i>Directrices de Ordenación do Territorio</i> (DOT)	2011
2011		<i>Plan de Ordenación do litoral</i> (POL)	2011

4.3. Local stakeholders knowledge & opinion

The great variety of stakeholders involved makes the selection of relevant actors a crucial decision for our case study in Ria de Pontevedra, since many bodies take part in the processes and procedures related to urban planning and conservation of NH. As we will check later through the analysis of stakeholders' opinion, there are a high number of procedures depending on institutions which are required to be consulted before the approval of any urban plan or any EIA report. However, the administrative dimension of the problem has been left apart to focus on the real executioners in practice. In order to tag them, the following interest groups have been differentiated: *Regulators* (local, regional and national authorities, who are the decision-makers), *developers* (promoters, real estate companies, construction firms and service providers, who are the executors of local urban plans), *nonstatutory consultees* (local citizenship and end users, the final customers of new developments). Two ways of consultation have been defined: a general survey for nonstatutory consultees, plus in-depth interviews for regulators and developers.

4.3.1. Survey

The first one was a general survey, which target were the nonstatutory consultees. Herein, the questionnaire remained simple on purpose, focusing on opinions and beliefs. Not much value can be extracted from it, since there has been no selection of participants by any group division, but it is useful to gain a broad view over citizenship opinions in relation with the problem under study. In fact, some outcomes have turned to be overwhelming, as we will analyze later. Complete format and results are included in the Annexe. First of all, it is necessary to define the sector of the population who has completed the questionnaire. The channel of distribution was a social network, and the recipients were people living or having any relationship within the area under study. This was an exclusive question which, in case to be untrue, blocked the possibility to complete the survey, resulting in 12.12% of people moved out of it. The fact that the questionnaire has been indiscriminately spread through internet explains the age spectrum of the consultees: almost 97% of consultees were between 18 and 40 years old. While 46.36% were students, only 12.2% were civil servants or employees of construction companies. About the existing linkage between the people and the area under study, 44.95% were local inhabitants, and 32.32% knew the area eventually as a tourist, that is, end users. Therefore, the survey is well distributed among local citizens and end users (nonstatutory consultees), but also including regulators and developers as a small part of the citizenship.

The first question on the matter asked if the value of NH in the area had been decreased over last decades, agreeing 89.51% of the consultees. This general agreement fades when asking about the most degraded aspects: for two thirds of all participants, local biodiversity or landscape were the most remarkable losses. Narrowing the questions to the causes of the degradation, only 6.06% thought that tourism had nothing to do with it, while 94.94% related the causes directly to tourism industry. Among this high percentage of people, more than 60% described other factors influencing NH degradation, being the most mentioned the industry. This is explained by the existence of a paper factory located next to the river mouth since 1957, which environmental impact has been subject of controversy and protests during last decades. However, as we focus on NH degradation by peri-urban sprawl, this aspect was set aside from the

study. Finally, the remaining outstanding reactions were about the coastal planning model: 93.79% thought there is a need for change in environmental and planning policies, and almost half of them remarked insufficient prediction in current planning practice causes ineffectiveness of existing regulation.

4.3.2. In-depth interviews

The outcomes of the survey, although not fully reliable, provided a general pattern to follow for interviewing the experts. Although the structure of the interviews follows the same questionnaire patterns, they finish with a series of open questions to allow ending with an informal conversation. However, interviewees themselves often started the informal conversation before the questions aimed to it, delivering valuable information about issues that had not been predicted beforehand. The total number of interviews was seven, five of which were made to regulators, local authorities of different municipalities in Ria de Pontevedra, three of them councillors in charge of planning or environmental departments. The other two interviewees were selected from the most active companies belonging to developers group, two promotion and construction companies. Other developers asked to take part of the study argued great lack of time to be interviewed, that is the reason why only two were selected and most of the participants were politicians. There are significant differences among the reactions, depending basically on the degree of confidence they allowed: as more relaxed they seemed to be, more critical they were with the current situation in coastal planning. All of them cooperated until the end, since the interviews were conducted in a friendly way, warning them in advance that all information shared would be totally anonymous. In fact, several politicians stressed this point by the end of the interview, when open-ended questions required delicate answers. Truthfully answers cannot be differentiated from disguised ones; that is why at some points there is general agreement, but always with a few exceptions. The following lines are dedicated to analyse the content of the responses collected.

The first part of the interview was analogue to the survey. The objective was to get general opinions about NH degradation, role of tourism and efficiency of regulations in order to prepare them for the open-ended questions leading to chat. The starting question asks if coastal NH had experienced degradation during last four decades: 6 out of 7 responses were clearly affirmative. One of the local politicians in charge of urban planning denied this fact, yet admitted that tourism pressure increased dramatically at the same time environmental regulations were not able to cope with some issues, such as water quality. Therefore, it can be assured there is consensus about progressive NH degradation in Ria de Pontevedra. However, it can be noticed a clear disagreement about its causes. While half of the interviewees who admitted NH degradation pointed to the tourism industry as the leading factor, three of them remarked industry and wastewater disposal (especially the paper factory previously mentioned) as the most harmful factors affecting natural patrimony. Interesting outcome was obtained from the last question of this first part, asking if it is necessary a change in current planning model and policies: Again, 6 out of 7 said yes. In addition, several options were given to explore their opinion in depth, asking them to choose in which direction this change should be applied. At this point, many of them started an informal conversation, expected for the second part of the interview. Most valuable data was collected then.

In general terms, it can be stated that the local politicians complained more about institutional and administrative issues, while developers were concerned about bureaucracy upon existing laws, rules and procedures. The questions were aimed to let the interviewee talk freely about the strengths and weaknesses of NH protection mechanisms in coastal areas. Herein there are several subjects to analyse:

On the one hand, local authorities were concerned about the regional government mostly, mentioning its incapacity to cope with the overwhelming amount of bodies and regulations influencing environmental protection in practice. This thought was expressed by almost all interviewees, being a developer the only one who did not. Throughout the informal conversation arose a variety of issues related to the inefficiency of central administration perceived. One general concern was the timing of procedures for permits. In their opinion, they are too slow considering the simplicity of some interventions, such as building a wall or painting a simple facade. This feeling was shared by four local authorities and one developer. Quoting a local councillor in charge of urbanism: 'the waterfall of rules, overlapping each other and depending on different governmental institutions, makes simple tasks complicated'. Less commented, but also a remarkable issue, was the lack of public participation in the planning process. The same councillor said: 'It is impossible to get all the neighbours together. Everybody wants the best for himself'. However, this not-in-my-backyard attitude does not match with general citizenship opinion about local NH status, checked through the survey: As long as environment is concerned, great percentage of inhabitants agree. Finally, the most important complaint related to administrative issues, shared by six of the participants, was the need for a supervising organism above all existing bodies, which objective would be to assure equity, objectivity and justice in planning process.

On the other hand, many complaints about laws, regulations and procedures were collected in both groups of developers and regulators, although more firm and vigorous in the case of developers, for whom this matter is an important constraint to their activities. There is total consensus about the strictness of existing laws about environmental protection, sometimes too limiting. However, complaints were focused not on norms, but on the actual practice. According to one local politician 'one thing is to have a law; another different thing is to have the willingness to apply the law'. Herein, the problem seems to be the failure to comply with the regulation. In addition, two of them remarked the existence of normative incongruities which favours that very different interpretations may co-exist legally. One developer complained, for example, about the typology of rooftop permitted in one area or another. This is a fundamental issue for NH conservation, because why should one homeowner conserve autochthonous heritage by having typical tile rooftop while his neighbour, being out of the defined area, can set slates on top? This subject brings us to the dichotomy between NH conservation in protected and unprotected areas. The way nature is preserved in officially protected sites differs largely from the way of conserving unprotected ones, although both areas use to be next to each other and share most of their physical and biological characteristics.

The most relevant opinion about regulation and legal procedures relates to the way EIA is applied. Only one interviewee, belonging to the group of developers, thought that EIA is correctly implemented and works out to comply with its purposes. The rest of them described the main tool for NH conservations in terms of 'totally useless procedure', 'merely bureaucratic' or 'economic and political, rather than led by

ecology-oriented decisions’. Asked about the reasons of this perceived inefficiency, different opinions were collected. For developers, EIA reports are not assessed enough to formulate an objective verdict about the feasibility of a project. In relation with this opinion, there are many consequences which proving this affirmation. The loss of sand pits all along the coast was mentioned as a clear example, due to the execution of numerous marinas. An especially serious problem, according to one of them, is the sand refilling of Sanxenxo’s beaches every year, caused by the extension of its marina, which changed natural streams severely. Artificial, temporary and costly solutions do not conceal the fact that insufficient ex-ante evaluation of impacts produced a damage which obliges the municipality to derive part of the yearly budget to fix regularly their own mistake, in order to conserve its main attraction for tourism. He also remarked other consequences usually lead to loss of biodiversity, which is disastrous as long as marine fauna is a capital source of wealth for a region where many families depend on fishing and seafood for their sustenance.

The regulators, however, showed a clear trend within their answers, structured in three significant weaknesses: central administration, explicitness of existing rules, and political interests involved. First of all, regional administration was accused of being an obstacle to achieve satisfactory agreements in a reasonable time. The amount of norms issued and binding procedures imposed by a variety of regional government departments such as the *Environment, Land and Infrastructure* one (unification of infrastructure and environment in the same department was seen as a revealing fact by one of the interviewees), *Economy and Industry*, and *Rural and Marine Environment*, difficult planning process ‘making impossible to comply with all of them, therefore favouring the illegal way’. In addition, there are a number of sub-bodies depending on the regional administration, which also issue their own restricting normative procedures. This is a mess for local authorities, who see the current situation as inefficient. One of them suggested the need for a proposal from the Spanish Parliament at national level, to unify the criteria for urban planning. Regulations were also main target of discussion. All of them coincide about their inconsistency. Apart from simple mistakes, like incongruities, the general opinion is to set a basis for an objective evaluation. One of the main problems concerns the expertise required to elaborate an EIA report. As they explained, this task is done by any technical graduate working for the private business in charge of executing the project. This means objectivity is extremely difficult to achieve, since the report will always try to fulfil company interests. Herein, the solution would be to transfer the responsibility of the EIA elaboration to independent, government-depending professionals, specialists in each matter. Secondly, many complains also refer to the differences between local regulations, which make some actions ‘legal in one area and illegal in the neighbour one’. For many of them, integration of policies would improve the system by knowing beforehand what is allowed and what is not. In words of a councillor of environment, ‘current system benefits the crafty people’ and ‘makes the law unfair in the end’. Finally, the last point of concern was the political interests involved in planning practice. Although this might be a taboo among politicians, all of them showed no reservation at expressing their opinion about the ‘atrocities’ resulting from considering personal profit rather than public benefit. For them, ‘the lack of effective banning mechanisms for breachers makes illegal actions remain unpunished’.

In the end, the interviewees were asked about some recommendations that, in their opinion, would improve current NH conservation tools. The responses were pretty

homogeneous; all of them mentioned several points which match with any others' opinion. It can be stated there is general consensus about the following needed improvements, which are grouped into two levels:

First, the most common recommendations referred to institutions, administrative procedures and existing regulation. The high number of governmental bodies involved in planning process and NH conservation issue different rules with common and differing points. The obligation of delivering a number of reports to a variety of bodies, besides the wide-spread slow speed and harshness of regional administration, complicates the process enormously. This usually leads the private initiatives to take the alternative illegal way. Interviewees, with no exception, claim for more explicitness, accuracy, simplification and integration of regulation and procedures in urban planning. The latter was the most highlighted point here, in two ways: unification of norms, and integration of coastal plans, covering both environmental and planning issues. There has been occurring a progressive shift towards integrated plans and policies during the last term of office, with the *Plan de Ordenación do Litoral* (POL, translated as Coastal Planning Act), but its recent enactment in 2011 makes practice hardly evaluable, according to some of the interviewees. However, the long-awaited integrated local urban plans (*Plan General de Ordenación Municipal*, PGOM) are still being elaborated, or pending of approval, in many municipalities. Apart from this simplification of instruments, a clear definition of professional boards, dependent of impartial bodies, is seen as another needed step for achieving real objectivity in EIA reports. In addition, political influence in decision-making process is considered another obstacle for sustainable development. Herein, politicians must be accountable for not obliging to the regulation through a sound functioning legal system to enforce complying with environmental and planning laws. This thought is shared by all the interviewees, including politicians. However, this set of rules must come from upper government levels, regional and national, which are the policy-makers able to fix the action at local level within sustainable practices.

The second group of claims is about transparency and public participation in planning process. Herein, participants recognized that urban planning is not currently democratized. According to them, online availability of plans and projects is a natural outcome of the rapid technological progress, which might easily bring more citizenship involvement in public affairs. Besides participation, interviewees remarked the man on the street remains helpless against abuses against his property rights, that is why they also claim empowering civilian rights to the detriment of most powerful stakeholders, these are, regulators and developers themselves.

The need for integration of policies and plans is the direction in which all interviewees, without exception, went for a primary solution to the planning problems in Ria de Pontevedra. However, environmental and planning policies did not come together along the history. Considering the importance that relevant actors involved in planning process gave to the need for implementing a comprehensive strategy, the next step of our research will be to analyze our findings so far in order to find out which position these policies occupy within our sustainability framework.

5. Discussion & conclusions

By reviewing the amount of data collected about local NH status and past planning occurred so far in Ria de Pontevedra, we are now able to position these policies within our theoretical framework. As a result of this analysis, it will be possible to assess present situation and extract some conclusions that might help policy makers and relevant stakeholders to gain a holistic view about the degree of sustainability in planning practice and NH conservation within the social, economical and environmental context of the area under study.

As Bas, Campillo and Méndez (2012) point out, NH conservation policies in Ria de Pontevedra had been promoted by hunters and fishermen in the very beginning, which evolved slowly towards a more environmentally holistic approach. When analyzing the evolution of environmental policies through time, we witnessed a migration from an initial development-oriented approach towards more conservation-oriented policies. This change was largely influenced by the successive initiatives from the EU (starting from Birds Directive, which was followed by EIA, Habitats, Water, Waste, SEA, and other Directives) aimed to achieve a joint legal framework for NH conservation, among others. However, first development-oriented approaches focused on wealth, setting a milestone which influence remained in policy-making for many decades. The study provided enough proofs of this statement: The denouncing Auken Report about the whole Spanish planning model, the continuously changing regulation, which barely did a few in favour of conserving valuable natural sites outside the legally recognized protected areas, and finally the local context pictured by the citizenship and interviewees as chaotic, ineffective and focused on economic aims and political interests. Herein, it seems sustainability has not been achieved yet, although several important steps have been taken towards this goal. Mapping past and current approaches within the ‘planners’ triangle’ (Campbell, 1996) it can be stated that the fuzzy area where they are allocated is moving from almost a pure economic-driven approach towards a more ecological one since the seventies (Bas Ventín et al. 2012).

What has been made clear by reviewing regulation and consulting relevant actors is that society involvement has not been taken into account so far, not even at local level. Only one of the public authorities recognized some attempts to democratize local planning in his municipality, but after a while it was given up due to the impossibility to reach an agreement, not even a consensus, between all neighbourhoods’ opinions. The ‘impossibility’ of societal involvement at small scale that seems to be perceived by local authorities can be extrapolated to a wider context at national level. While the number of petitions by associations of people affected by planning problems kept growing, deputies from interested parties in the EU Parliament were trying to knock down the Auken Report. They finally could not, and the chamber recognized how individual rights have been violated for the sake of a ‘public interest’ that is vaguely defined by the laws. Paradoxically, the concept of ‘public interest’ appears to have become, regarding land management, a powerful tool for regulators and developers to take purely economic-driven decisions often against the interests of a large sector of the society. Herein, the violation of the property right and NH damage due to lax interpretation of environmental regulations, are the most prominent results of these breaches. All these issues place the policy regarding coastal planning practice far away from society and environment within the Campbell’s triangular scheme for sustainability. Perhaps the missing link here to make coastal planning more sustainably effective is society involvement (see Figure 9).

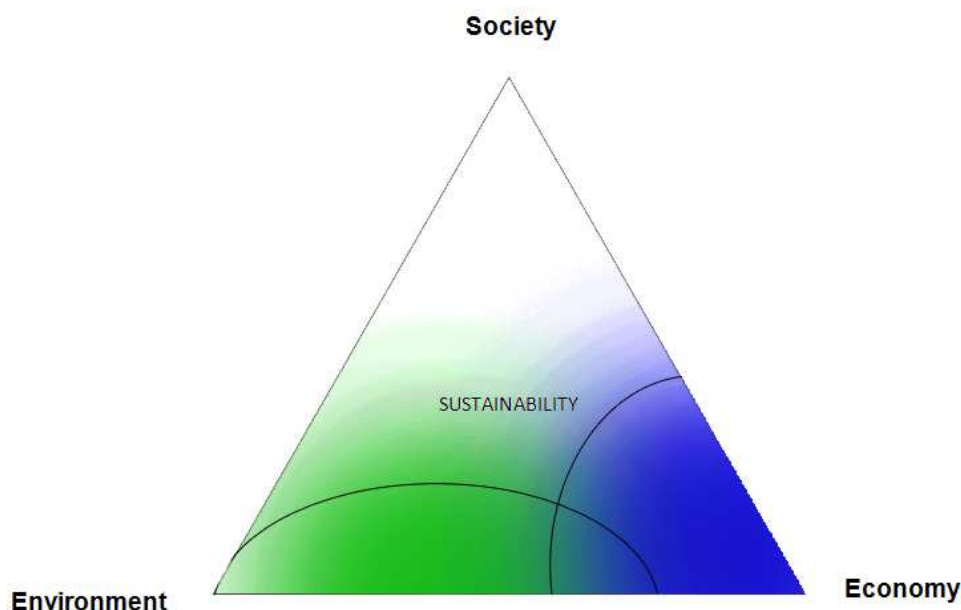


Figure 9. Sustainability map of past environmental and planning models

Herein, the trouble relies on meeting the needs of a modern society that is continuously evolving, and changing faster and faster. While the speed of societal change is increasing, the gap between decision-making and societal agreement becomes larger, making policy hard to comply with citizenship requests on time. Recently, as shown throughout previous chapters, past planning policies have been proven to be inefficient enough to be ineffective at conserving NH and controlling urban sprawl in coastal areas. Now that is widely accepted the human influence on Earth's ecosystems, development must go in hand with heritage, guaranteeing a fair future for next generations through sustainable practices. However, the ultimate responsibility of balancing development and conservationism in a sustainable way still belongs to the local authorities (which hold the planning competences) and whose work should be guided by effective tools elaborated by the policy-makers, these are the governments at regional and national level. It is noticeable how the conservative Spanish approach aimed to maintain old forms of vague planning is progressively becoming obsolete from a societal point of view, as demonstrate the growing citizenship response to corruption cases, recent EU Parliament resolutions on this matter, or the enactment of new comprehensive regulations for strategic coastal planning. Public participation in decision-making processes figure among the objectives of the European Strategic Environmental Assessment (SEA) Directive. However, the implementation in Spain of Social Impact Analysis (SIA) is vague, being merely a bureaucratic informing act, rather than real participation, despite the Spanish national law of EIA clearly enforces it (Pardo Buendía, 2002).

Modern approaches like participatory planning constitute a proven way to democratize planning through the creation of a real public sphere, communication between stakeholders, holistic experimentation, et cetera; all led by social movements and steered by the public authorities (Allmendinger, 2002). The change towards a more participative approach is supported by the EU Parliament (Auken, 2009) and

outstanding Galician geographers like Lois & Aldrey (2011). For many authors like Bas Ventín et al. (2012), environmental conservation has not reached a culminating point either, that is why it is needed an effort from both governmental bodies and local citizenship in order to implement new effective instruments to conserve our NH and to acquire personal commitment in relation with our surrounding environment. Therefore, the objective must be to go from informing towards a higher degree of participation (Pardo Buendía, 2002). Perhaps Arnstein's ladder (1969) is the most popular tool for planners to define the degree of governance power the citizenship holds. According to the interviewees, as it was already pointed out, the current public participation is reflected in law but not regulated in practice, so it becomes impossible to climb up from informing due to the divergence of opinions among neighbours. However, last decades led developed countries to enjoy, thanks to the internet, a global network with uncountable advantages and opportunities for democratizing modern forms of governance to scale up towards higher steps of the participation ladder (Chadwick 2006, Saco 2002). Just as an example, some pioneers have already successfully studied and assessed the possibilities of public involvement in planning through tools like Public Participation Geographic Systems (PP-GIS), achieving significant and interesting results (Bugs et al. 2010, Anderson et al. 2009, Tung-Wen Sun et al. 2009, Hoyt et al. 2005). The solid settlement of traditional democracies makes the generalization of PP-GIS as a binding governance instrument still a utopia. However, it is certainly out of doubt that it may constitute a future pathway the global society will go through, since we have already witnessed how social networks act as a powerful communication tool among protesters during, for example, the recent Arabic Spring, which led to serious political and institutional changes in many countries (Stepanova 2011, Hofheinz 2005). For now, the strict enforcement of the Spanish law would lead to an actual SIA with outcomes steered by the society through real public participation. These steps forward are still yet to come.

What has been made clear throughout the course of our research is that NH in Ria de Pontevedra has experienced a set of modifications which altered, either in a deep or superficial way, its intrinsic natural values such as landscape or biodiversity. This set of changes was defined as degradation in most of the documents and testimonies gathered for the realisation of the present study, meaning there has been a damage of natural values in any way. The EU Parliament, together with authors like Castro Martínez & Otero Iglesias (2007), scholars like Precedo Ledo (2008), and most of the interviewees agreed on urban sprawl as the main cause behind this loss. The management of growing conurbation in Ria de Pontevedra gave historically more weight to development rather than to environmental protection. This unbalanced situation kept accepted as valid for a long time, as long as the wealth of the region increased and the characteristic natural features remained visible. However, this situation nowadays passed the inflection point where urbanization became too visible to go unnoticed within the autochthonous landscape. We have already reached the point at which the built environment is not coexisting with nature, but it is invading it. Therefore, the solution must come through both environmental conservation and urban planning together, bringing up instruments harmonize new developments with NH. In order to satisfy this objective, a strategic vision of the whole region appears to be needed, to give consistency to coastal plans in such ways. One revealing opinion, shared by the great majority of consultees, defences integration of policies as the way to tackle conflicts generated by the messy co-existence of multiple regulations and organisms in the present day, which is in the end

the cause of illegal actions sometimes taken by developers. Authorities at regional level seem to have complied with this objective in 2011.

In 2011, and after a long wait, integration of policies has finally arrived at regional level with the enactment of the planning directive DOT together with the comprehensive coastal plan POL. It is defined by the regional government as an strategic plan to ‘manage dynamically the land from an integral perspective, and within a context of territorial solidarity and sustainability’ (Xunta de Galicia, 2011). However, it is still early to make a judgement of its results in practice. Besides, lack of consensus in the approval proceeding makes the new directive very contested by progressive opposition parties and different associations defending territory, which accuse the government to leave certain inaccuracies to allow profitable activities with great environmental impact and continue massive urbanization on wide coastal areas (Lois & Aldrey 2010). Only time will prove either those accusations or efficiency of the new plans.

In addition, further steps towards municipalities’ involvement are essential. Planning competences still remain on local governments which need to issue new urban plans adapted to the new laws. We already remarked the little percentage of municipalities that count with an updated PGOM in accordance with the latest regulations. The inexistence of planners as such, results in a fragmentation of authority regarding planning practice which leads to inconsistent policies and plans. Here two ways of action may add cohesion to urban planning: First, the hypothetic creation of real planning authorities working independently from political interests. In order to achieve that, deep institutional reforms must be applied, since planning tradition in Spain does not give decision-making power to this kind of technicians and leave it for politic authorities. Consequently, it is reasonable not to consider this option as a realistic claim. Second, a call for action at local level from higher levels of governance. This may be empowered, for instance, by widening APLU competences and changing its voluntary status to mandatory, forcing local authorities to comply with the current regulation and get satisfactory results on a long term. Making politicians accountable for their breaches

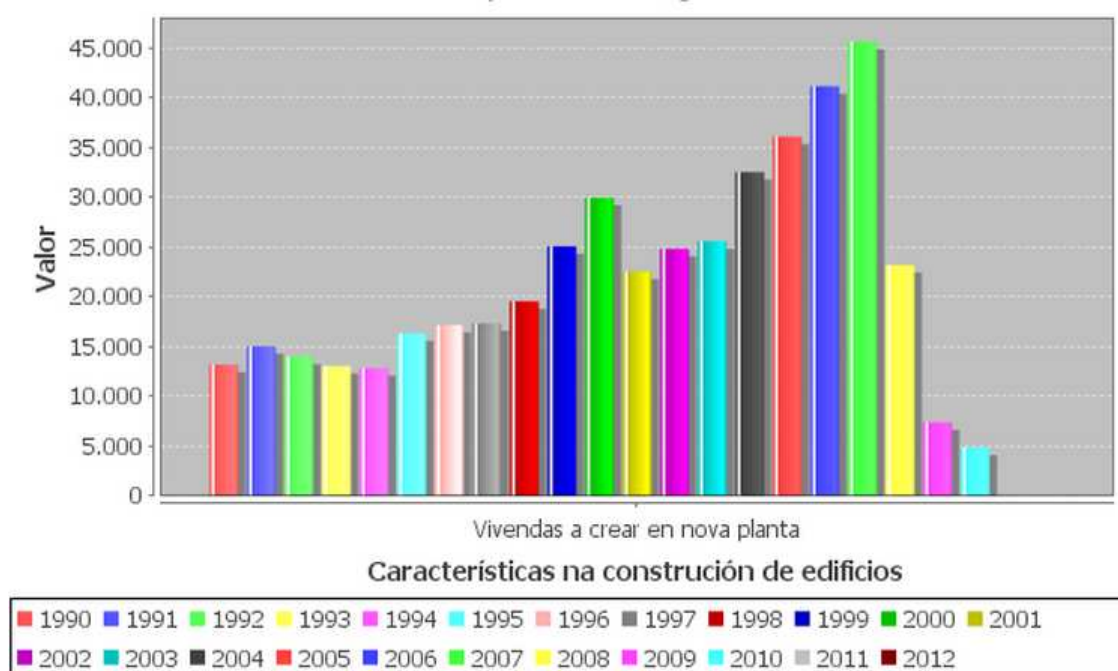


Figure 10. Number of new housing construction permits 1990-2010 (IGE, 2012)

(or slackness) and setting deadlines to finally enact local PGOMs seem to be legal measures claimed by all sectors of society to move towards a more sustainable planning model. This must be got over by progressively changing municipal financial models from a predominant building-dependant model towards other forms of financing, helping to reduce the frequent cases of clientelism, nepotism and corruption (Lois & Aldrey, 2010).

To sum up, although environmental and urban planning are still unresolved subjects, there are arising some signs of change. We are currently experiencing the effects of the housing bubble blast since 2008, what caused a sudden stop in the construction of new dwellings (see Figure 10). This can be seen as an interruption of Butler's normal evolution of tourism destinations, caused by external economic factors which forced a situation of early stagnation. Far from being harmful for planning practice, it should set a landmark to take advantage from, since new integrative policies ease the way to achieve joint sustainability together in environmental and urban planning. It constitutes a unique opportunity to boost the tourism from the early stagnation phase induced by the financial crisis to a rejuvenation stage led by a new sustainability-based paradigm in planning (see Figure 11). In order to achieve this goal, urgent action from local governments to commit to citizenship concerns is now the first necessary step forward. Taken into account the ongoing changes in environmental and planning policies, it is very possible that continuation of past local planning habits would lead to a declining phase severely damaging local NH, therefore also affecting regional economy.

Plenty of lessons have been learned throughout the present paper. A wide view of the conflicting issues arising from coastal development has been addressed, perhaps less deep than it could be desirable, due to the complexity of relationships between the different concepts that are taken into account. Assessing the degree of sustainability of a planning approach is a hard task, difficult to do accurately (Campbell, 1994). The very definition of sustainability implies widening the scope at all levels, so a complete study on the matter should include a large variety of researches on every field along with their

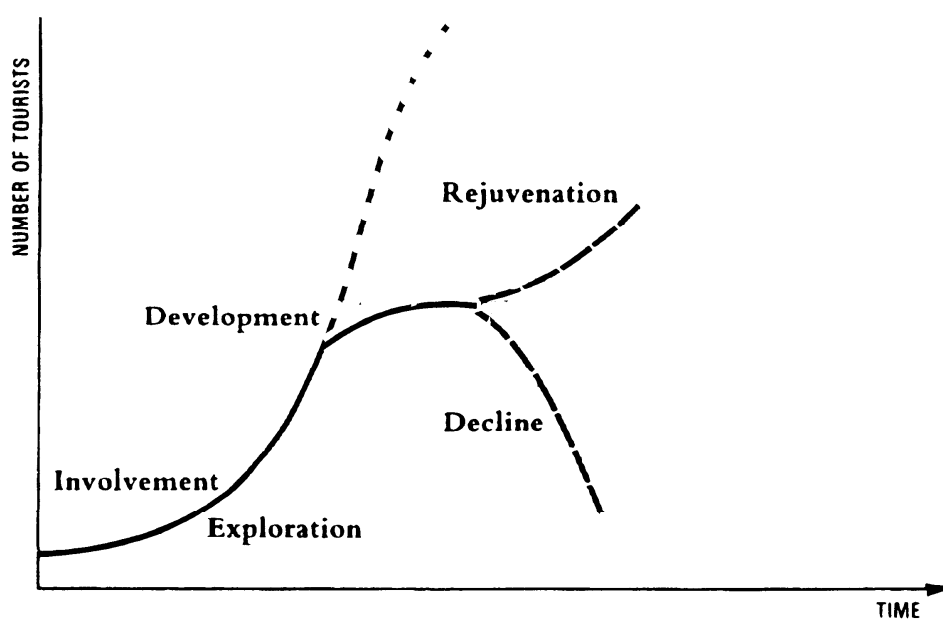


Figure 11. Interruption of Butler's life-cycle due to the outbreak of the financial crisis in 2008

impact on each other. Perhaps with more time would be translated in additional studies that could have improved the present research, strengthened some arguments, and perhaps provided additional conclusions. For instance, careful analysis of relevant cases in which procedures for building have not fulfilled some legal requisites would have provided valuable information about where the law fails at being complied. Other documents could have been reviewed to enlarge the scope as well, such as resolutions of trials on planning-related problems. Surveys and interviews with a higher number of people involved and a deeper, more elaborated structure would also have delivered more revealing stakeholders' perceptions and beliefs. Another example of possible additional research would be a comparative research on land occupation, a quantitative study that might identify useful trends, origins and nodes of development, even addressing resemblances between different areas with the same problem. In fact, this is an important outcome of the present paper: the competences in Spain hold by local authorities, together with the autonomous regions setting the environmental directives make much of our analysis extrapolable to other Spanish coastal sites with a similar situation. However, is not applicable to sites in which the conurbation resulting from sprawl created large cities (erasing any hint of NH to preserve) in which other issues like waste management or pollution arise now more relevant to achieve sustainable planning.

However, current financial crisis must be seen as an opportunity to set a point from which coastal sites suffering from early building stagnation re-think their planning approaches. Integration, accountability and society involvement appear to be the key concepts to tackle the ongoing challenge of developing a region while conserving its valuable natural heritage.

6. Annexe

6.1. Survey: format

Original questionnaire in Spanish
(*English translation below*)

1. ¿Qué relación le une a la costa de la Ría de Pontevedra?

- Residencia permanente
- Trabajo/intereses económicos
- Turismo/residencia ocasional
- Ninguna, no la conozco
- Otra

What kind of link do you have with Ria de Pontevedra?

- Permanent residence*
- Work/economic interest*
- Tourism/eventual residence*
- None, I don't know it*
- Other*

2. ¿A qué grupo de edad pertenece?

Which age spectrum do you belong to?

3. ¿Qué profesión desempeña?

- Funcionario público
- Trabajador en empresa constructora/promotora
- Empresario en población costera
- Trabajador por cuenta ajena en el sector turístico
- Estudiante
- Otro

Which job do you perform?

- Civil servant*
- Worker for promotion/construction company*
- Entrepreneur at a coastal town*
- Employee at tourism sector*
- Student*
- Other*

4. ¿Cree que el valor medioambiental de la Ría se ha visto mermado durante los últimos 40 años?

Do you think natural Heritage in Ria de Pontevedra has been degraded Turing last 40 years?

5. Por favor, ordene los siguientes aspectos del 1 al 5, desde el que más (1) al que menos (5) se ha visto degradado desde su punto de vista:

- Valor paisajístico y visual
- Biodiversidad terrestre y marina
- Habitabilidad y calidad de vida
- Calidad del aire
- Calidad acústica

Please, sort the following features from the most (1) to the least (5) degraded one, from your point of view

- Landscape and visual value*
- Land and marine biodiversity*

Liveability and life quality
Air quality
Acoustic quality

6. ¿Cree que ha tenido algo que ver la presión urbanística promovida por el sector turístico?

Sí
Sí, además de otros factores
No, otros

Do you think it has anything to do with the urban pressure led by tourism?

Yes
Yes, besides other factors
No, other

7. En su opinión, ¿le parece que la presente regulación medioambiental y urbanística protege de manera efectiva el medio ambiente y paisaje costero?

In your opinion, do you think current planning and environmental regulation Project effectively coastal environment and landscape?

8. ¿A qué cree que debe inefectividad de la regulación?

Evaluación de Impacto Ambiental inefectiva
Insuficiente planificación previa
Diseño de las construcciones

In which way do you think current regulation fails?

Ineffective Environmental Impact Assessment
Insufficient previous planning
Building design

9. ¿Cree necesaria una revisión de la política medioambiental y/o de ordenación urbanística?

Do you think it is necessary a revision of current planning and environmental policies?

10. ¿En qué sentido se debería reforzar la actual política de ordenación urbanística y conservación medioambiental? Respuesta múltiple

Promoviendo la participación pública en el proceso de planificación territorial
Fortaleciendo la protección medioambiental
Considerando impactos ambientales en el Plan General de Ordenación

Municipal

Rigidizando la normativa para evitar eventuales influencias entre autoridades públicas y promotores/constructores
Otro

In which way would you reinforce current planning and environmental policies?

Promoting public participation in urban planning
Strengthening environmental protection
Considering environmental impact a priori within the Municipal Zoning Plan
Stiffening regulation to avoid power relationships between public authorities and promoters/constructors
Other

6.2. Survey: results

Original questionnaire in Spanish

¿Qué relación le une a la costa de la Ría de Pontevedra?

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Residencia permanente	89	44.95%					
2. Trabajo/intereses económicos	4	2.02%					
3. Turismo/residencia ocasional	64	32.32%					
4. Ninguna, no la conozco	24	12.12%					
5. Otro	17	8.59%					
Total	198	100%					
Mean : 2,374		Confidence Interval @ 95% : [2,182 - 2,566]		Standard Deviation : 1,378		Standard Error : 0,098	

¿A qué grupo de edad pertenece?

Answer	Count	Percent	20%	40%	60%	80%	100%
1. <18	1	0.61%					
2. 18-25	39	23.93%					
3. 25-40	118	72.39%					
4. 40-60	2	1.23%					
5. >60	3	1.84%					
Total	163	100%					
Mean : 2,798		Confidence Interval @ 95% : [2,712 - 2,883]		Standard Deviation : 0,557		Standard Error : 0,044	

¿Qué profesión desempeña? *En caso de encontrarse retirado, señale la profesión que desempeñaba cuando se encontraba en activo*

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Funcionario público	10	6.10%					
2. Trabajador en empresa constructora/promotora	10	6.10%					
3. Empresario en una población costera	2	1.22%					
4. Trabajador por cuenta ajena en el sector turístico	4	2.44%					
5. Estudiante	76	46.34%					
6. Otro	62	37.80%					
Total	164	100%					
Mean : 4,902		Confidence Interval @ 95% : [4,687 - 5,118]		Standard Deviation : 1,406		Standard Error : 0,110	

¿Cree que el valor medioambiental de la Ría de Pontevedra se ha visto mermado durante los últimos 40 años?

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Sí	145	89.51%					
2. No	17	10.49%					
Total	162	100%					
Mean : 1,105		Confidence Interval @ 95% : [1,058 - 1,152]		Standard Deviation : 0,307		Standard Error : 0,024	

Por favor, **ORDENE** los siguientes aspectos del 1 al 5, desde el que más (1) al que menos (5) se ha visto degradado desde su punto de vista:

Average Rank	1	2	3	4	5					
Valor paisajístico y ...	2,63									
Biodiversidad terres ...	2,25									
Habitabilidad y cali ...	3,28									
Calidad del aire	2,90									
Calidad acústica	3,92									
Data Table										
Valor paisajístico y ...	41	31.30%	24	18.46%	28	21.54%	18	13.85%	20	15.38%
Biodiversidad terres ...	43	32.82%	39	30.00%	28	21.54%	13	10.00%	7	5.38%
Habitabilidad y cali ...	11	8.40%	22	16.92%	37	28.46%	39	30.00%	21	16.15%
Calidad del aire	23	17.56%	31	23.85%	28	21.54%	32	24.62%	16	12.31%
Calidad acústica	13	9.92%	14	10.77%	9	6.92%	28	21.54%	66	50.77%

¿Cree usted que ha tenido algo que ver la presión urbanística promovida por el sector turístico?

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Sí	40	30.30%					
2. Sí, además de otros factores	84	63.64%					
3. No, otros factores (por favor, especifique)	8	6.06%					
Total	132	100%					
Mean : 1,758		Confidence Interval @ 95% : [1,663 - 1,852]		Standard Deviation : 0,554		Standard Error : 0,048	

En su opinión, ¿le parece que la presente regulación (medioambiental y urbanística) protege de manera efectiva el medio ambiente y paisaje costero?

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Sí	25	16.89%					
2. No	123	83.11%					
Total	148	100%					
Mean : 1,831		Confidence Interval @ 95% : [1,771 - 1,892]		Standard Deviation : 0,376		Standard Error : 0,031	

¿A qué cree que es debido la ineffectividad de la regulación? Por favor, ordene las siguientes causas del 1 al 3, según preferencia:

Average Rank		1	2	3		
Evaluación de Impact ...	1,92					
Insuficiente planifi ...	1,62					
Diseño de las contru ...	2,45					
Data Table						
Evaluación de Impact ...	39	32,50%	51	42,86%	30	25,21%
Insuficiente planifi ...	59	49,17%	46	38,66%	14	11,76%
Diseño de las contru ...	22	18,33%	22	18,49%	75	63,03%

¿Cree necesaria una revisión de la **POLÍTICA** medioambiental y/o de ordenación urbanística?

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Sí	136	93.79%					
2. No	9	6.21%					
Total	145	100%					
Mean : 1,062		Confidence Interval @ 95% : [1,023 - 1,101]		Standard Deviation : 0,242		Standard Error : 0,020	

¿En qué sentido, en su opinión, se debería reforzar la política medioambiental y/o de ordenación urbanística? (Respuesta múltiple)

Answer	Count	Percent	20%	40%	60%	80%	100%
1. Promoviendo la participación pública en el proceso de planificación.	32	11,39%					
2. Fortaleciendo la protección medioambiental.	74	26,33%					
3. Considerando impactos ambientales a priori en el Plan General de Ordenación Urbanística.	67	23,84%					
4. Rigidizando la normativa para evitar eventuales influencias entre promotores/construtores y autoridades públicas.	77	27,40%					
5. Simplificando trámites mediante la coordinación de organismos públicos y cohesión de normativas.	22	7,83%					
6. Otro:	9	3,20%					
Total	281	100%					
Mean : 3,036		Confidence Interval @ 95% : [2,888 - 3,183]		Standard Deviation : 1,264		Standard Error : 0,075	

Answers to open-ended questions

3.

¿Qué profesión desempeña? *En caso de encontrarse retirado, señale la profesión que desempeñaba cuando se encontraba en activo*

05/09/2012	4582342	DUE
05/09/2012	4582481	Consultor de negocio
05/09/2012	4582576	Profesora
05/09/2012	4582579	ingeniero informático
05/09/2012	4582609	Ama de casa
05/09/2012	4582631	Abogado
05/09/2012	4582710	dependienta
05/09/2012	4582737	Trabajador por cuenta ajena en sector industrial
05/09/2012	4582971	Trabajador por cuenta ajena en servicios financieros sector sanidad
05/09/2012	4583015	Enfermera
05/09/2012	4583028	turismo
05/10/2012	4583467	ADMINISTRATIVO
05/10/2012	4583575	personal eventual en el SERGAS
05/10/2012	4583648	Autonomo transporte administracion
05/10/2012	4583832	parado
05/10/2012	4584785	Periodista
05/11/2012	4586576	Reportera gráfica TV
05/11/2012	4586789	Programador contratado por cuenta ajena
05/13/2012	4589838	Trabajador por cuenta ajena en el sector TIC
05/13/2012	4590075	Consultor informático
05/21/2012	4603666	Cámara y realizador de TV

6.

¿Cree usted que ha tenido algo que ver la presión urbanística promovida por el sector turístico?

05/09/2012	4582540	Las fábricas de ENCE y Elnosa
05/09/2012	4582556	la industria
05/09/2012	4582596	Ence
05/11/2012	4587558	La razon fundamental de la degradacion son nuevas infraestructuras (como la autopista) y ,paradójicamente la falta de otras infraestructuras como un adecuado sistema de saneamiento urbano.

10.

¿En qué sentido, en su opinión, se debería reforzar la política medioambiental y/o de ordenación urbanística? *(Respuesta múltiple)*

05/09/2012	4582457	Inspección efectiva y sanciones ejemplarizantes
05/09/2012	4582478	Haciendo que se cumpla la ley de costas de 1988.
05/09/2012	4582566	TODO ESTO ES POCO.....
05/09/2012	4582750	aumentando las multas por saltarse la ley de costas
05/09/2012	4582764	Que se aprue o PXOM que polo meno en Cangas nen está aprobado
05/09/2012	4582856	En realidad creo que todo esto o ya existe, o la gente no lo cumple; o por otro lado que es utópico e/o irrealizable.
05/09/2012	4582974	no solo el impacto visual, sino el impacto que genera una vivienda sobre la zona
05/10/2012	4584785	Concienciación ciudadana (somos los primeros culpables), aplicación de la ley sin corruptelas: seguimiento, inspección y en caso de negligencia sanción sin opción de recurso.
05/11/2012	4587558	Haciendo cumplir la leyes!! Hay legislación de sobra, y ya no digamos ideas políticas, pero no vale de nada si no se aplica. Otra alternativa complementaria a la indicada es la formación desde las mas tempranas edades, pero esta es una estrategia a largo plazo.

6.3. In-depth interviews: format

The interviews began with the survey questions. Afterwards, participants were asked about wicker topics with open-ended questions. These subjects required long explanations and turned the interview into an informal conversation.

Open-ended questions in Spanish
(*English translation below*)

1. ¿Cuáles son las fortalezas y debilidades de la presente política de ordenación urbanística?

Which are the strengths and weaknesses of current planning policy?

2. ¿Cuáles son las ventajas e inconvenientes del procedimiento de EIA en Galicia?

Which are the advantages and drawbacks of EIA procedure in Galicia?

3. ¿Hasta qué punto la calidad de un informe de EIA es comprobado por expertos?

To what extent the quality of any EIA report is assessed by experts?

4. ¿Cree usted que los procedimientos de EIA son demasiado simplistas o demasiado estrictos?

Do you think EIA procedures are too simple or too strict?

5. En su opinión, ¿cree que un informe de EIA constituye actualmente un trámite burocrático de escasa relevancia práctica?

Do you think EIA currently is a bureaucratic formality with little relevance in practice?

6. ¿Qué recomendaciones daría usted para mejorar el proceso de ordenación urbanística y conservación medioambiental en la Ria de Pontevedra?

Which recommendations would you give in order to improve planning process and environmental conservation of Ria de Pontevedra?

6.4. List of interviewees

The information distilled out of the interviews is confidential. Therefore, the interviewees are made anonymous in the context of this thesis. For more information the author can be contacted.

Developers:

Interviewee #1

Co-partner at local construction/promotion company (Pontevedra, 8 May 2012)

Interviewee #2

Foreman builder at local construction/promotion company (Pontevedra, 9 May 2012)

Regulators:

Interviewee #3

Municipal civil servant (Sanxenxo, 9 May 2012)

Interviewee #4

Municipal civil servant (Sanxenxo, 9 May 2012)

Interviewee #5

Municipal civil servant (O Grove, 10 May 2012)

Interviewee #6

Municipal civil servant (Poio, 10 May 2012)

Interviewee #7

Municipal civil servant (Poio, 10 May 2012)

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