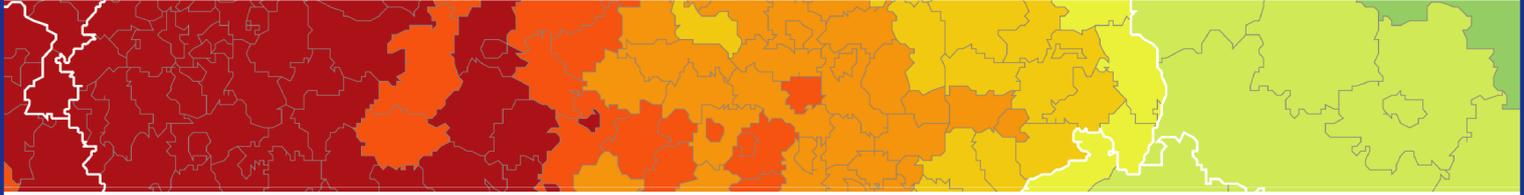




Co-financed by the European Regional Development Fund



# SUPER – Sustainable Urbanisation and Land Use Practices in European Regions

Applied Research

**Annex 3.7: Case study HR-Coastal**

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This applied research activity is conducted within the framework of the ESPON 2020 Cooperation Programme.

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This delivery does not necessarily reflect the opinion of the members of the ESPON 2020 Monitoring Committee.

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**SUPER – Sustainable Urbanisation  
and Land Use Practices in  
European Regions**

**Version 06/11/2020**

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## Abbreviations

EA	Environmental Assessment
ESPON	European Territorial Observatory Network
ESPON EGTC	ESPON European Grouping of Territorial Cooperation
EU	European Union
HR	Croatia
ICZM	Integrated Coastal Zone Management
LAU	Local Administration Unit
MSMECA	Management Strategy for Marine Environment and Coastal Areas of the Republic of Croatia
NGO	Non-governmental organisation
NUTS	Nomenclature of Territorial Units for Statistics
OG	Official Gazette
PCA	Protected Coastal Area
PPA	Physical Planning Act
SEA	Strategic Environmental Assessment
SUPER	ESPON Sustainable Urbanisation and Land Use Practices in European Regions
UNDP	United Nations Development Agency

# 1 General introduction

In ESPON SUPER, the case studies contribute to the objective of unravelling how different interventions in diverse social, environmental and economic settings have transformed land-use development practices. In particular, the aim is to analyse, understand and learn from the successes and failures of practitioners and decision makers over the last three decades in their search for more sustainable land use. All case studies are based on close observation and direct contact with each territory and with the people involved in the design and implementation of each intervention. To this end, each case study was assigned to the project team with the greatest local knowledge of the territory, institutions and language.

The methodological framework used for all case studies consisted of three groups or basic sources of information and knowledge.

1. **Context:** each intervention addressed or influenced a particular land-use development practice which had emerged within a specific territorial and institutional context, which is crucial for understanding and interpreting the results. It was also important to know the objectives related to the sustainability of land use that had been set for each territory, albeit on paper, at the regulatory level. These tasks were based on desk research, even though, in some cases, local stakeholder support was valuable to locate the most relevant pieces of information.
2. **Developments:** the second source of data was the quantitative land use changes in the form of maps and graphs. This allowed each case study team to consider to what extent the underlying contextual factors and the studied interventions had transformed the territory and the rates of urbanization. This information was essential for evaluating the effects that each intervention had on land-use sustainability and, more indirectly, on culture and spatial planning practices.
3. **Stakeholder interviews:** each case study held over ten in-depth interviews with stakeholders involved in one way or another with the intervention. At these meetings, they were asked about the reasons for and the perceived urgency of the intervention, how its objectives were defined and by whom, the experience of implementing each intervention, the pitfalls encountered, as well as the benefits it had brought in terms of improving the three thematic dimensions of land-use sustainability: ecological, economic and social equity. In addition, stakeholder maps were produced that present the type and intensity of the relationships that some stakeholders had with the rest in a visual way.

This report on the case study of HR-Coastal presents a synthesis of all three outputs in order. It is structured as follows. This introductory section provides a summary of the main characteristics of the case study (Section 1.1), the scale of analysis (Section 1.2) and geographical scope (Section 1.3). Section 2 contextualizes how urbanization occurs in the case study area. It contains descriptions of typical urban developments, how this is regulated,

who promotes it, how it is implemented and emerging challenges regarding land-use development. Keeping with this contextual approach, Section 3 discusses how the studied intervention addresses the challenge of sustainability in its three thematic dimensions (Section 3.1) as well as in its temporal dimension (Section 3.2).

Section 4 presents the main results of the case study research in three parts. Section 4.1 analyses how the priorities of the intervention were configured based on information collected from the interviewed stakeholders. In particular, it seeks to know how a perceived problem was identified or constructed to justify the intervention, the extent to which land use sustainability was a consideration, and whether these elements tended to unite the community in favour of a collective interest or whether, on the contrary, they were a source of tension and conflict. Section 4.2 discusses in more detail how seven organizational and institutional aspects may have influenced the relative successes and failures of the intervention. Section 4.3 combines the analysis of land use changes, the opinions of the consulted stakeholders and, where relevant, the stakeholder maps, to make an assessment of the actual results of the intervention on the planning and development culture and the different thematic dimensions of sustainability. Finally, Section 4.5 explicitly answers questions posed to the ESPON SUPER team, thus reflecting the direct contribution of each case study to the project's objectives.

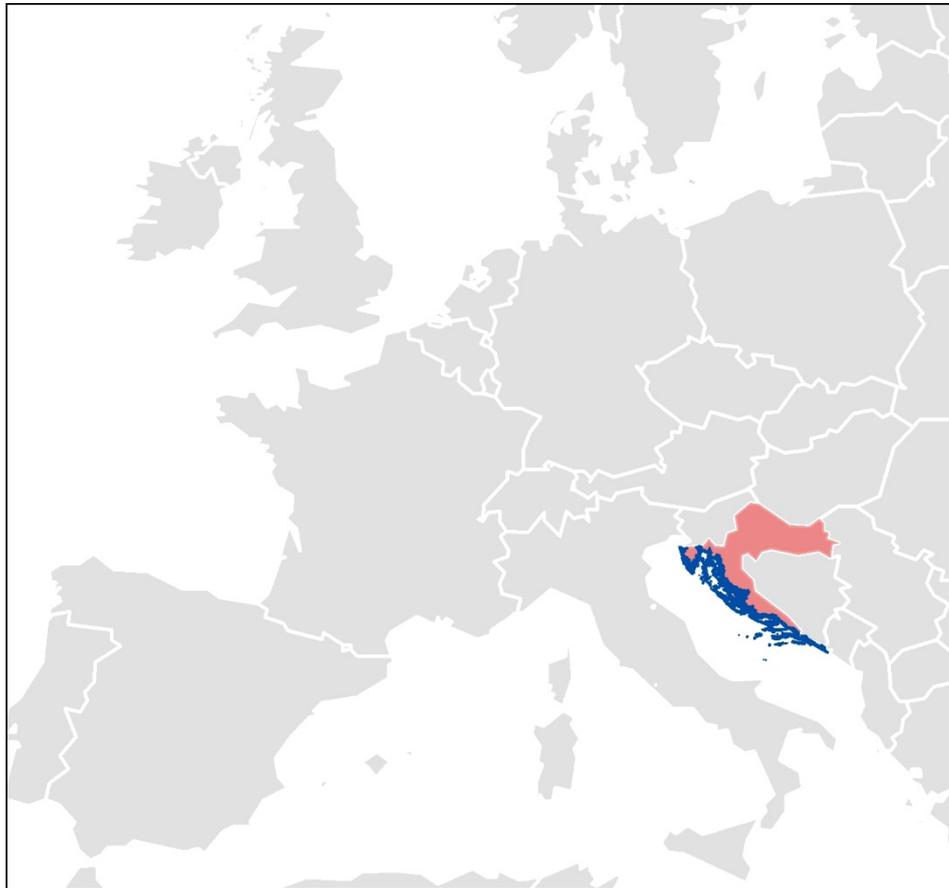
While each individual case study contributes to answering the questions posed, its true value lies in the possibility of combining and contrasting the outputs of the eleven cases. This choral work is presented in Annex 3.13. The triangulation of results allows for the formulation of generalizable conclusions and recommendations that can contribute to the design of new plans and policies better aligned with the objectives of sustainability and land take abatement at the European level. In this way, the case study presented in this report also contributes to this other broader objective.

## **1.1 Case study HR-Coastal**

The Republic of Croatia is a Mediterranean country in which tourism is one of the important economic pillars. At the beginning of the 21<sup>st</sup> century, interest for tourism development became more pronounced. In order to protect the coastal area from excessive urbanisation, illegal construction and ultimately curb the increase in construction on the coast, the Government of the Republic of Croatia has restricted new construction in the coastal area through the Physical Planning Act and related decrees. Physical Planning Act defines the protected coastal area (PCA) encompassing the area of coastal self-governing units (Map 1.1). For the purpose of protection and sustainability of development, the restricted area covering 1000 m wide continental belt (both on terrestrial part and islands) and 300 m wide sea belt measured from coastal line is determined. Certain limitations are prescribed for planning and use of the restricted area. Additional limitations are determined for building within 100 m from the coastal line. This intervention aims to limit construction opportunities in

the coastal area in order to avoid "soil sealing" and to protect the Adriatic Sea as the most valuable natural resource for sustainable and long-term development.

Map 1.1: Location of case study "HR-Coastal"



## 1.2 Scale/s of analysis

The Physical Planning Act of the Republic of Croatia (OG 153/13, 65/17, 114/18, 39/19, 98/19) is the main national-level act which regulates spatial planning system of Croatia. It is adopted on national level and valid for all other levels. The Protected Coastal Area (PCA) within the Physical Planning Act is a focus of this case study. This Act defines that Protected Coastal Area encompasses the area of coastal local self-government units. According to that, secondary main level is local (LAU2) since it directly influences the spatial planning and processes through spatial plans at local level (influencing all area included within the spatial plans). It also has partial influence on regional level spatial planning (including special spatial limitations only for coastal area – coastal LAU2). PCA is completely within the NUTS2 – Jadranska Hrvatska.

Table 1.1: HR-Coastal scales

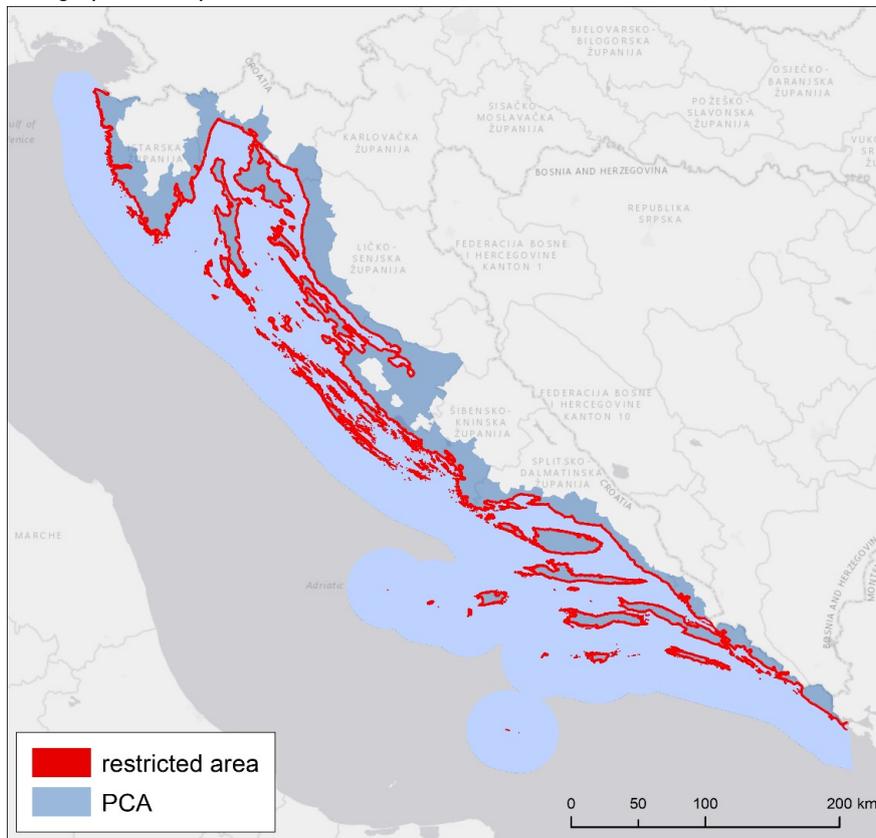
Scales	Main scale	Other scales
Supra/Trans-national		
NUTS 0	Republic of Croatia (HR)	

<b>NUTS 1</b>	Republic of Croatia (HR0)	
<b>NUTS 2</b>		Jadranska Hrvatska (HR03)
<b>NUTS 3</b>		Primorsko-goranska županija (HR031), Ličko-senjska županija (HR032), Zadarska županija (HR033), Šibensko-kninska županija (HR034), Splitsko-dalmatinska županija (HR035), Istarska županija (HR036), Dubrovačko-neretvanska županija (HR037)
<b>LAU1 – NUTS 4</b>		
<b>LAU2- NUTS 5</b>		131 local self-government units

### 1.3 Geographical scope

The Physical Planning Act defines that Protected Coastal Area (PCA) covers the complete area of all coastal local self-government units, which conforms with LAU2 classification. While it does not have “surrounding impact area”, the Physical Planning Act defines restricted area covering 1000 m wide land belt (both on terrestrial part and islands) and 300 m wide sea belt measured from the coastal line) with specific provisions and limitations for the building and spatial interventions (Figure 1.1).

Figure 1.1: Geographical scope<sup>1</sup>



<sup>1</sup> Restricted area is a part of PCA and lies within its area.

## **2 Contextual analysis**

The importance of the coastal zone has been recognised and valorised in spatial planning in Croatia since the 1960s, when numerous comprehensive plans were developed to address rising development challenges. The idea of sustainable development in spatial planning is a tradition that is important to emphasize. The desire to preserve space as a high-value natural resource permeated the 20<sup>th</sup> century as a guiding thread in the development of the Adriatic coast. Environmental protection has been an important aspect of all spatial plans because a preserved and untouched environment is the most important resource for tourism development. In 1972, a project of environmental protection for the Adriatic region of Yugoslavia - Jadran III, was developed in cooperation with the United Nations Development Agency (UNDP) in order to assess environmental impact of the spatial plans. Coastal and spatial planning of the sea was an integral part of the federal state spatial plans from 1974 and 1988. Planning continued in the Croatian part of the Adriatic until the 1990s when pressure on the coast and the sea area increased.

The subject of this case study is the Protected Coastal Area, an intervention introduced into spatial planning legislation (the Physical Planning Act) of the Republic of Croatia in 2004 in order to prevent and restrict uncontrollably expanding construction outside the settlement borders in the Croatian coastal area.

### **2.1 Typical urban development**

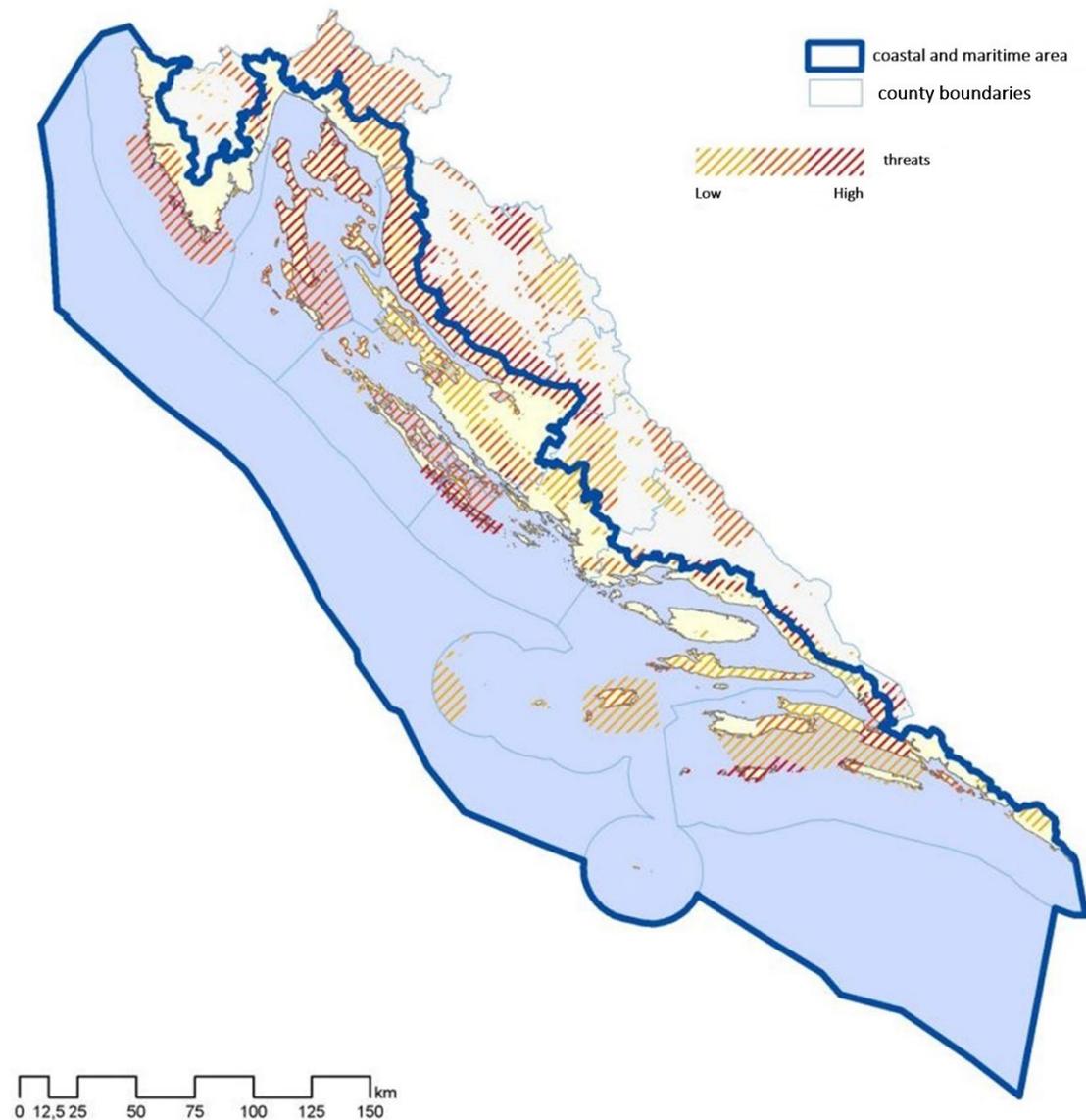
Since the 1950s, a rapid industrialization and development of tourism in the Croatian coastal zone caused a decrease in traditional agricultural production. Also, an increase in migration of population towards the coast resulted in the growth of urban areas. However, the most important issue of the Croatian coastal area has been a big increase in secondary housing, which has started in the end of 1970s. During the socialist period, which lasted until 1990s, the main incentive for the development of the second house phenomenon was saving of capital surplus due to often inflation (Opačić 2009). The houses were often constructed without valid building permits and not complying with existing spatial plans (Katuričić et al. 2018).

In modern-day Croatia, the most significant pressures on the coastal environment are caused by urbanization, tourism and traffic. Urban growth and land consumption are particularly evident in the narrow coastal zone, which is the most attractive. Despite the population decline, recent study showed that built-up areas in Split, the biggest Croatian coastal city, increased by more than 20% since 2001, mostly at the expense of vegetated areas in already densely populated zones (Gašparović et al. 2017). Furthermore, an increase in secondary housing is still an issue: in the period 2001-2011, the number of second homes increased by 50%, and second homes represented 19.7% of the housing stock in 2011 (Opačić and Koderman 2018). Therefore, private accommodation represents the majority of touristic

capacities. Multi-apartment recreational complexes transformed many local communities in terms of economic, socio-cultural and environmental aspects, since individual houses represent much bigger consumers of space compared to hotels.

In parallel to the standard planning system exists the issue of informal construction, which is characteristic for South European families of planning. In the socialist period, informal housing appeared at the edge of bigger cities on former agricultural or natural land as a result of insufficient spatial planning system. Due to a lack of spatial plans and land policies, economic immigrants often created informal settlements. At the time, the authorities were aware of the issue, but the growing problem was seemingly ignored (Kapetanović and Katuriđ 2015). Informal settlements were never fully integrated and understood within the Physical Planning Act but they are discontinuously regulated through legalisation acts which are introduced every 5 to 15 years. The last Croatian legalisation act was brought in 2011.

Figure 2.1: Indicative threat assessment in the PCA (a combined impact of all sectors on the state of the coastal and marine environment)



Source: MSMECA, 2015

## 2.2 Basic institutional conditions

The spatial planning system of the Republic of Croatia is regulated by the Physical Planning Act (OG 153/13, 65/17, 114/18, 39/19), which defines three spatial plan levels: state, regional and local level.

At the state level, competent authority responsible for the development of spatial plans is the Ministry of Construction and Physical Planning, while The Croatian Parliament is responsible for adoption of all the state level spatial plans, except for the urban development plan of state significance, which is adopted by the Government. At the county (regional) level, competent authorities established to perform expert and administrative spatial planning tasks for spatial plan preparation are county departments for physical planning. The county councils are competent for the adoption of county-level spatial plans. Similar procedures exist at the local level, where city / municipal bodies or expert institutions develop spatial plans, while city / municipal council are responsible for the adoption.

The importance of spatial plans is in line with their hierarchical spatial level. Therefore, local plans need to comply with county plans, and county plans need to adhere to the Physical Planning Act (the state level spatial plan is still in the development phase). Additionally, for the adoption of the local spatial plan of the city or municipality within the PCA, or the urban development plan which is partially or fully located in a 1000 m zone from the coastline, a direct consent of the Ministry of Construction and Physical Planning is required, which indicates stronger legal control on planning in the coastal zone.

The determination of construction areas<sup>2</sup> is made at the local level, in the spatial development plan of a city or municipality. The areas intended for construction are differentiated from the areas intended for the development of agriculture, forestry, and other activities that can be planned outside the construction areas. The county spatial plans can define isolated construction areas outside settlements for economic purposes of the county significance. This way, the construction of potential large-scale facilities in the PCA must be approved at the county (regional) level by demonstrating the importance of the proposed project for the wider area.

There is a need to improve both vertical and horizontal interrelations of public authorities. Disagreements on different levels of governance can occur due to a lack of cooperation, communication and political interests. Also, authority limits of different sectoral Ministries and public bodies are not clearly determined, which can cause jurisdictional issues and horizontal disagreements.

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<sup>2</sup> The construction area is the area determined by the spatial plan. It includes the built-up area of the settlement and the area planned for development and extension of the settlement. It consists of the construction area of the settlement, the separated part of the construction area of the settlement, and the separated construction area outside the settlement (Physical Planning Act, (OG) 153/13, 65/17, 114/18, 39/19)

The Croatian planning system consists of traditional spatial planning and strategic planning. Spatial planning is managed by the Ministry of Construction and Physical Planning, while strategic planning is in the domain of the Ministry of Regional Planning and European Union funds. These two systems are often not harmonized at the local and regional level through spatial plans and strategic planning documents. For example, in some cases, strategically important projects are planned without a quality connection with spatial planning possibilities and vice versa. Within the framework of strategic planning, each local self-government unit develops its own development strategies that are often not harmonized with neighbouring local self-government units. Strategic planning is approached in a sectoral manner and there is a lack of coordination and cooperation at the vertical and horizontal levels. The current state of the coastal area is the result of, among other things, a long-term sectoral approach to development, coupled with an increasing number of strategic documents at the local or regional self-government level with a lack of effective coordination and cooperation.

### **2.3 Initiative**

The development of tourism at the turn of the millennium began to experience extremely positive results. Demand for accommodation was growing. In that period, the process of transition from the socialist economy to the market economy was still active, and larger hotels and accommodation facilities were in the process of privatization. With the emergence of private capital and private initiatives for the development of accommodation capacities among the local population, there has been an increased interest in the construction of new facilities in form of “secondary housing”. There were frequent problems with illegal construction, which was mostly carried out in an attractive area near or along the coast. In order to reduce the pressure on the coastal area by excessive construction and to combat illegal construction, the public administration had to expand the legal framework with priority in order to preserve the Adriatic coast as the most important natural development resource in tourism development. The building lobby of private enterprises achieved a position of great power in the late 1990s and early 2000s and at the time became a key participant in spatial and urban planning at the local level, which provoked a big increase in secondary housing (Opačić 2009). Today, these influences are more restrained and regulated.

On the initiative of the Ministry of Construction and Physical Planning in 2004, the Protected Coastal area (PCA) was introduced into legislation and the spatial planning system of the Republic of Croatia as an area of special interest for the state. The spatial coverage of the PCA expanded throughout the years, and today it covers the entire territory of coastal and island municipalities. Within the PCA, a planning restriction which includes specific provisions and limitations for the construction of building sites outside existing settlements has been imposed in a 1000m-wide terrestrial zone and a 300m-wide offshore zone (which represents the original spatial coverage of the PCA from 2004) (Figure 2.1.). The intervention generally aims to prevent and restrict uncontrollably expanding construction, which is mostly manifested

in the form of isolated construction areas outside the settlement borders in the coastal zone. Through planning mechanisms, the importance of the coastal protection and the need to ensure a continuous urban development rather than scattered construction are stressed.

PCA provides special conditions for construction in the PCA and the restricted area, which must be observed and implemented by spatial planners when designing and implementing spatial plans as well as issuing building permits. Thus, the PCA must:

- preserve and recover the endangered areas of natural, cultural, historical and traditional values of the coastal and hinterland landscape and encourage the natural regeneration of forests and vegetation;
- determine environmental measures on land and sea and to protect water resources;
- ensure free access to the coast, passage along the coast and public interest in the use of the maritime domain;
- preserve uninhabited islands and islets primarily for agricultural activities, recreation, organised visitation, exploration and without the formation of construction sites;
- condition the development of infrastructure by protecting and preserving the value of the landscape;
- limit the interconnection and long-term extension of existing construction areas, that is, plan new construction areas beyond forest nature areas;
- rehabilitate abandoned exploitation fields of mineral resources and production areas primarily through landscape reclamation or catering, tourism and sports and recreational purposes.

As a practical example, the PCA prohibits the planning of harmful interventions such as the exploration and exploitation of mineral resources, etc. Likewise, spatial planners must adhere to restrictions on the designation of construction areas, such as the permitted maximum extension of an existing construction area by 20 % of the built-up area or the prohibition of new construction areas within a 1000 m zone from the coast. A number of restrictions and guidelines have been defined to limit further urbanisation and unsustainable land use in coastal area.

Since the tourism is one of the main drivers of urbanisation in coastal area, Physical Planning Act defined following restrictions on constructing the tourism and recreational purpose areas:

- accommodation buildings and accompanying facilities (sports, recreational, catering, service, entertainment, etc.) will be in accordance with the characteristics of the natural landscape and protection measures for the cultural heritage (in addition with communal infrastructure and environmental protection, position, size, etc.)
- accommodation buildings should be at least 100 m away from the shoreline
- the type and capacity of accompanying facilities and public areas should be determined in proportion to each phase of construction of accommodation buildings
- the construction of an individual building plot should not exceed 30 %, and the efficiency coefficient does not exceed 0.8
- at least 40 % of the area of each building plot shall be arranged as park plantations and natural greenery
- wastewater drainage is solved by a closed sewage system with treatment
- the number of berths of one or more moorings is a maximum of 20 % of the total number of accommodation units.

Stakeholders participate in the creation of amendments to the law through public debate, and for each specific spatial plan to which PCA relates, it is obliged to organise a public debate, through which stakeholders can participate, comment and suggest alternative solutions.

## **2.4 Planning permission**

The Physical Planning Act defines that spatial planning in the PCA should primarily preserve and repair endangered areas of cultural, natural, historical and traditional values of coastal landscape and that new developments must be made in accordance with the mentioned landscape values. Therefore, the Act restricts determination of new construction areas outside the settlements within the restricted area of the PCA. Design, construction, use and maintenance of buildings are conditioned by the Building Act (OG 153/13, 20/17, 39/19).

Today, the spatial and development planning is generally carried out in agreement with the city / municipality strategic documents and guidelines. However, if certain private incentives prove to be interesting to local authorities, distinct changes in spatial plans can be made in order to accommodate project needs. Of course, all changes must be in accordance with the county plan and approved by the Ministry. However, land speculation related to planning of new developments on former agricultural or natural land may occur. Local authorities often encourage further developments due to consequent increase in taxes and income. Illegal construction is less represented due to strict legal regulations.

In general, individual building permits within construction areas are issued by large cities (over 35,000 inhabitants) and county seat cities for their area or county offices for all other municipalities and cities in the county.

In order to create new building plots, agricultural land conversion is made in accordance with the spatial plans and supporting documents. Through the process of drafting the spatial plan amendments or developing urban development plans (UPU). Process includes public hearing where spatial plan can be adjusted for the needs of stakeholders. Stakeholders could also request a new amendments of spatial plan. Before the adoption of proposed changes, it is required to obtain a positive opinion of the Ministry of Agriculture. Land conversion fees depend on the value and location of agricultural land. The fees for plots outside the construction area amount to 25 or 50% of the market value of that plot if it were within the construction area, depending on the agricultural value of the plot. If the agricultural plot is located within the construction area, the fees are 2.5 to 5% (OG 20/18, 115/18, 98/19).

The issue of informal settlements in Croatia was resolved by the Legalization Act in 2011. The majority of informal objects was legalized, and the rest was demolished. Interaction between the planning system and the legalisation effect has been regulated through the introduction of remediation plans. There are still only pilot initiatives without clear consequences on how they are really going to function. It seems that in Croatia, like in many other South European

countries, there are no initiatives to structurally deal with new informal developments. However, the changes introduced by the PCA have a potential to reassess the interaction between formal planning system and informal initiatives.

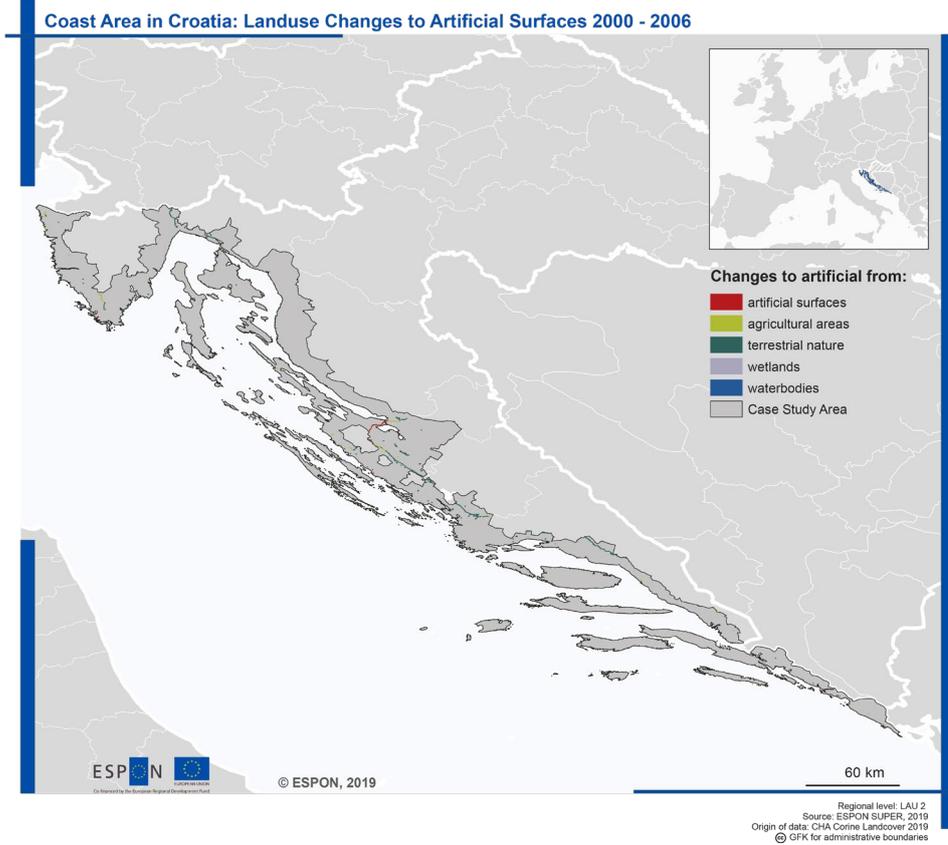
## **2.5 Development process**

The Spatial Development Strategy of the Republic of Croatia (OG 106/17) strives for balanced and sustainable spatial development using the principles of territorial cohesion in order to improve the quality of life and mitigate depopulation trends while maintaining the identity of places. Objectives of spatial planning are aligned with the assumptions of cohesion policy in the Physical Planning Act (OG 153/13, 65/17, 114/18, 39/19).

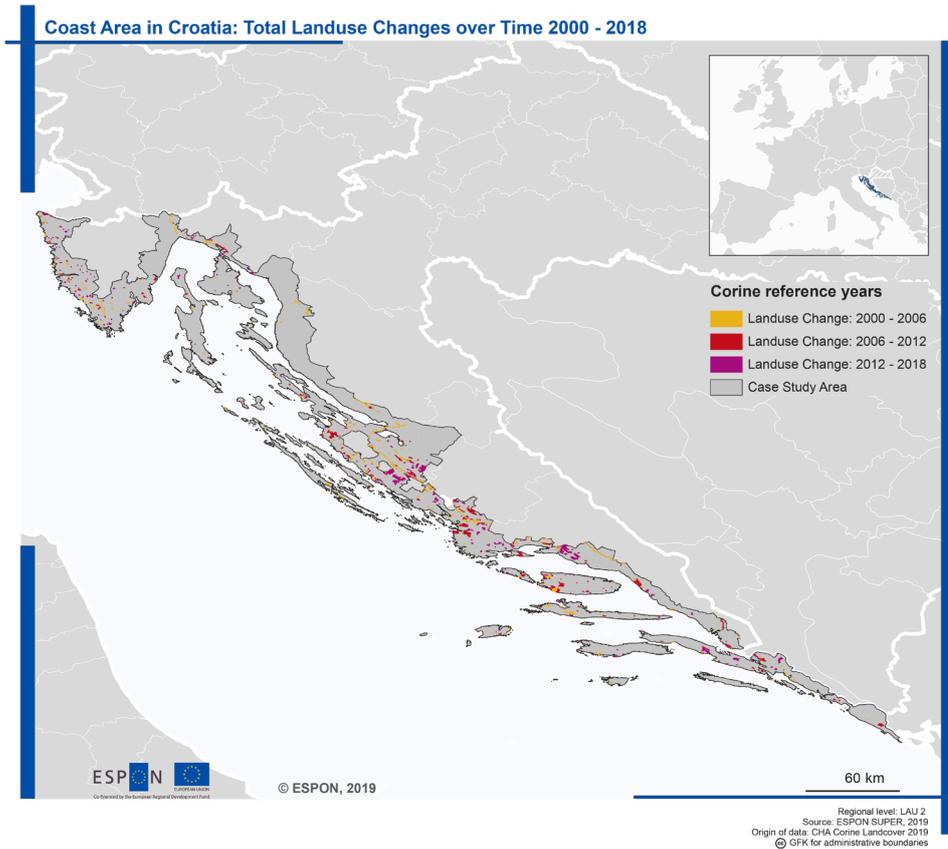
The spatial development of the coastal area has been highlighted in this Strategy as an important aspect of spatial planning in the Republic of Croatia. The development of the coastal area is primarily related to tourism, recreation, agriculture, local culture and maritime economic activities (fisheries, aquaculture, shipbuilding, etc.). The Adriatic Sea is an extremely important resource for Croatia. In managing the coastal area, it is necessary to take care of the development of islands that have negative demographic and socioeconomic trends (Spatial Development Strategy of the Republic of Croatia, OG 106/17).

The major determinant of the current and future development of the coastal area is tourism. At the Croatian coast, tourism is considered not only as the main economic factor, but also as the greatest space consumer, which is confirmed by the considerable sizes of areas for tourism use located within the total construction areas of the communities and the counties. However, in order for the real impact of tourism on spatial resources to be measurable, it is necessary to develop new spatial indicators and models for their calculation. Despite restrictive measures embedded in the Physical Planning Act, the spreading of construction zones with no viable transport and municipal infrastructure is still evident in majority of the touristic centres (Rudež and Marić 2014). According to Corine Land Cover data from the period 2000-2018, the area of artificial surfaces in the coastal municipalities increased by 26.3% and in the restricted area (1000 m wide terrestrial coastal zone) by 17%. However, it should be noted that 75% of land cover changes related to construction in both coastal municipalities and the restricted area occurred in the period 2000-2006 (Map 2.1 and Map 2.2), i.e. before and slightly after the introduction of the intervention in 2004.

Map 2.1: Land use changes to artificial surfaces in period 2000-2006



Map 2.2: Total land use changes per CORINE reference years 2000-2018



The total change in built-up areas does not indicate drastic changes in the period 2000-2018 (Figure 2.2 and Figure 2.3). The biggest absolute change was recorded in the category “discontinuous urban fabric”, which is also the most expressed category of built land in the area of the Croatian case study. In the context of relative change, a strong change in the category of “logistic” was recorded (transport and other infrastructure), which is supported by the intensive development of transport network in the 21st century. The development of A1 Zagreb – Split highway primarily influenced the increase of this category of the Adriatic Croatia’s land cover, which consequently influenced the urbanisation stimulated by the development of tourism activities. The development of tourism activities can be linked to the increase in the category “discontinuous urban fabric” due to new tourism facilities development (both secondary housing/private accommodation and hotels, camps, etc).

Figure 2.2: The amount of LUC in Croatian case study calculated by area (ha) in period 2000-2018

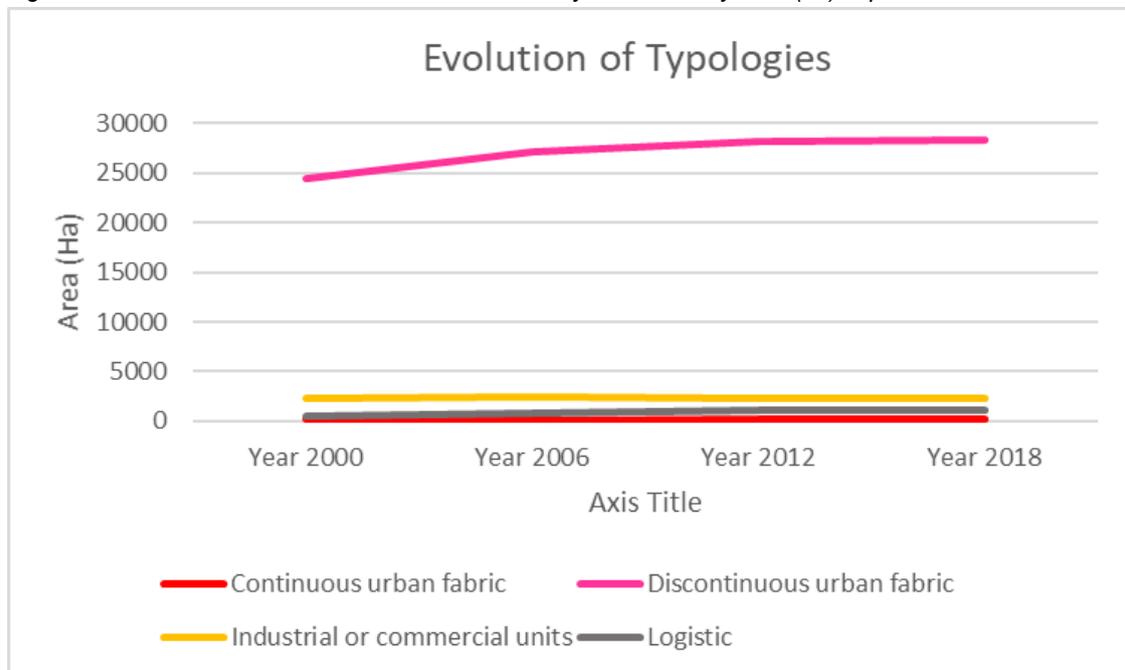
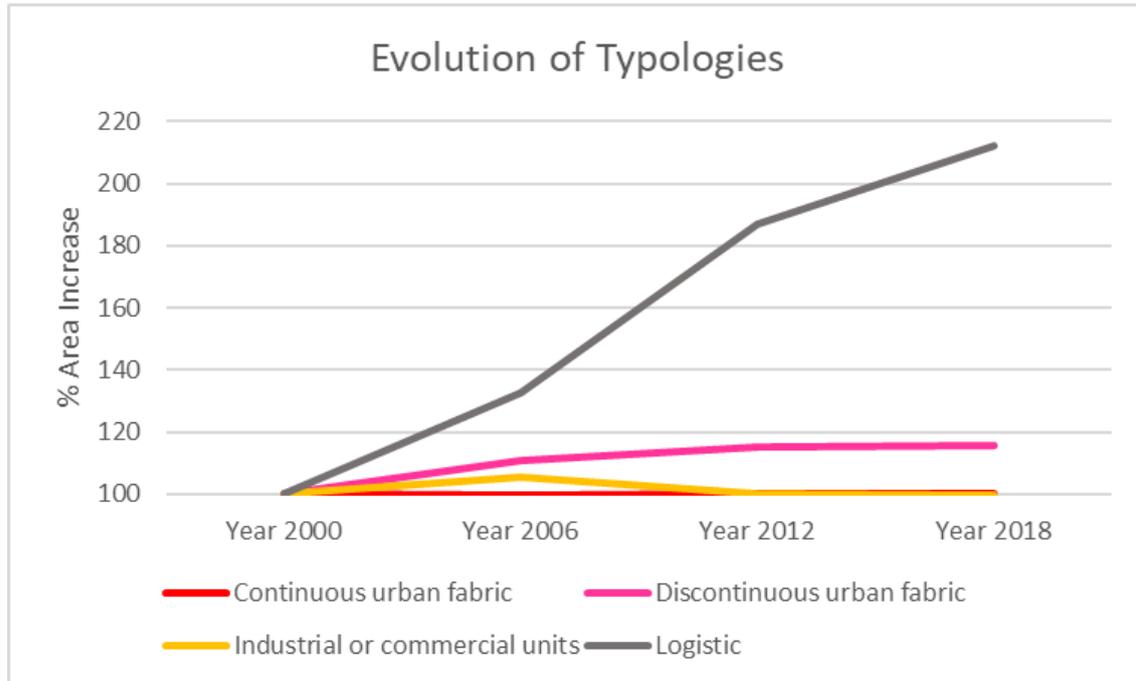


Figure 2.3: The percentage of LUC categories in Croatian case study calculated in period 2000-2018



Since the number of tourist arrivals is continuously increasing, one can expect further pressure on land consumption and an increase in construction of tourist accommodation capacities. The maximum utilization of brownfield sites, expansion of the supply of supporting facilities, and an increase in capacity occupancy rate of tourist accommodation represent the main challenges in sustainable planning.

## 2.6 Current issues

- The current state of the coastal area is the result of, among other things, a long-term sectoral approach to development, coupled with an increasing number of strategic documents at the local or regional self-government level with a lack of effective coordination and cooperation.
- The process of urbanisation is highly restricted and conditioned in PCA and its restricted area, but sometimes it occurs at the local level of spatial planning due to individual profit interests.
- Secondary housing at the Croatian coast is driven by private tourism initiatives, which generate secondary income for the local population. This complex situation results in “aggressive” land consumption in the most valuable areas of Croatian coast.
- Ongoing increase in tourist arrivals stimulates the construction of new accommodation capacities in the coastal zone, especially private apartments.

## **3 Sustainability of objectives**

### **3.1 Thematic dimensions**

One of the main objectives of spatial planning defined in the Physical Planning Act (PPA) is “to achieve spatial sustainability in relation with rational use and conservation of spatial capacities at land, sea and underwater for the effective protection of space” (Article 6 of PPA). This item is applicable in all aspects of spatial planning, including spatial planning within the Protected Coastal Area. Also, it includes all three aspects of sustainability within the concept of spatial sustainability.

PPA in the definition of its restricted area states that the “planning and the use of area within the PCA should be carried out for the protection, achievement of the objective of sustainable, purposeful and economically efficient development”. While the PPA itself equally balance the three dimensions of sustainability, PCA has a larger focus of environment protection, medium focus on economic sustainability, and a smaller focus on social sustainability. It covers all three dimensions, but with different intensity. Several articles refer to integrative and multi-dimensional sustainability, so it is difficult to limit their boundaries.

Article 46 briefly sums up the sustainable aspect of coastal and maritime spatial planning within the Protected Coastal area. Economic sustainability is emphasised by the need for preservation traditional economic activities on islands (agriculture, tourism, fishery, etc.) and redevelopment of already used area (for example abandoned mines and exploitation sites, stonework, etc.) into catering, tourism, sport and recreational purposes through landscape revitalisation and redevelopment. Ecological sustainability is emphasised by the needs of restoration of endangered environment and their regeneration, preservation of landscape values and limitation of building areas, especially on forested areas. Social sustainability is emphasised by the ensuring the “free access to the coast, passage along the coast and public interest in the use of maritime good” (it could be described as a shared well-being).

Article 49b addresses all three segments of spatial sustainability: “When developing and adopting spatial plans covering the coastal and marine area, efforts should be made to contribute to the sustainable development of tourism, maritime transport, the fisheries and aquaculture sector, the energy sector in the marine area, unless otherwise provided by this Law, and the preservation, protection and improvement of the environment and nature, including resilience to the effects of climate change, as well as the protection and preservation of cultural goods.”

### **3.2 Temporal balance**

The Physical Planning Act was adopted in 2013, and is still in force. The Protected Coastal Area until 2017 was limited to 1000 m land belt and 300 m sea belt from coastline. Within the amendments to the Physical Planning Act in 2017, previous Protected Coastal Area became

“restricted area”, and the new Protected Coastal Area encompasses whole land and sea area of self-government units (LAU2). PCA is still active.

Physical Planning Act emphasises the need to protect and conserve space for future generations. It is especially described in Article 10 of the PPA: “In order to achieve sustainable development and building excellence, when adopting the starting points, strategies, programs, plans, regulations and other general acts and their implementation, the State as well as local and regional self-government units must stimulate the economic and social development of society by meeting the needs of today's generation, respecting equal opportunities for the needs of future generations and preventing the prevalence of interests of certain activities on the account of the balance of development, nature, environment protection, cultural goods and needs of other uses of space.” This paragraph could be more closely identified with the objectives of conserving the natural environment and the landscape that should be used and managed in a sustainable way with the aim of conserving natural and spatial resources. Coastal and maritime area is considered as a maritime domaine, protected space of shared well-being needed for economic, social and economic development of all generations.

Further spatial planning in PCA must include potential long-term landscape changes due to climate change impacts, which directly includes the temporal dimension of spatial planning. Except that, spatial planning of coastal and marine area shall “analyse and determine the spatial and temporal distribution of existing and future significant activities, purposes and use of the coastal and marine area, taking into account their interactions”. As defined by the PPA, spatial planning of PCA should be integrative, sustainably multidimensional and temporally flexible in order to achieve optimal spatial sustainability.

## 4 Impact assessment

### 4.1 Pre-intervention

#### 4.1.1 Identification of the problem

Table 4.1: The main focal issues according to interviewed stakeholders.

Focal issue	# instances
Uncontrolled increase in construction	5
Preservation of the nature and space	3

The focal issue that triggered the intervention was a high-risk possibility of uncontrolled increase in construction in the coastal zone and the need to protect the space and nature in order to ensure sustainable development. The construction in the coastal area has generally increased since the late 1970s, mostly related to tourism facilities and secondary housing. Furthermore, some most valuable coastal areas were occupied by industry (especially in the Kvarner bay). The growth in illegal construction has become an important and not appropriately managed issue as well. Since the 2000s, ongoing touristic development, an increase in demand for accommodation capacities and a general increase in income have generated an expansion of construction areas (again mainly related secondary housing, for example island of Vir), sometimes at the expense of agricultural and natural land. Therefore, the preservation of nature and traditional values has been threatened. Accordingly, all the interviewees mentioned increasing (legal and illegal) construction and the need for space and nature protection as the main reason for the intervention.

Although the intervention does refer to all thematic dimensions of sustainability (economic, ecological, social), it is mostly associated with the ecological dimension due to its primary goal of land and nature protection. However, both the law and stakeholders recognise the linkages between social and ecological sustainability in terms of well-being, aesthetics, provision of recreational space and ecosystem services. Moreover, economic sustainability can be enhanced by the development of sustainable types of tourism and agriculture, which depend on preservation of nature and sustainable use of land.

We found a consensus among interviewees that the greatest supporter and the initiator of the intervention were the Government of the Republic of Croatia and the Ministry of Construction and Physical Planning. However, it is important to note that the idea of the PCA (Protected Coastal Area) followed the approaches of the Barcelona Convention and Integrated Coastal Zone Management (ICZM).

As a rule, all interviewees support the introduction of the regulation but find small deficiencies in its implementation. One stakeholder also mentioned the positive role of NGOs for nature protection and spatial planners. On the other hand, the most opposed stakeholders were the private investors, landowners in the coastal area and architects of the potential projects.

The agreement among majority of stakeholders in defining the focal issue certainly contributed to the successful development of the initial regulation/intervention. However, due to lack of clear political will to resist adverse interests of private sector, the later implementation and results of the intervention were hampered.

#### **4.1.2 Inception of goals/action**

Initially the intervention was considered to be very good and successful in combating increasing illegal and legal construction in the coastal zone. The first version of the intervention, which came into force in 2004, was very restrictive and the proposed protection measures were considered to be highly effective by most of the interviewees. The intervention put effective restrictions on building outside the prescribed building zone of the settlements, with several exceptions for sea-related facilities (ports, aquaculture, etc.). However, one interviewee (architect) pointed out that terms and regulations were not well defined, as well as the delineation of the protected area, and that additional regulations for specific interventions should have been addressed.

Regarding the timing of the intervention, the consensus among interviewees was not found. Most of the interviewees emphasized that the intervention should had been introduced earlier, as the problem in space have existed since the 1970s. However, some stakeholders pointed out that the intervention was premature, since specific terms were not well defined at the time of inception and the problem of plan implementation was not solved in advance by using a basic definition of public interest and a policy for the protection of public good. Nevertheless, the inception time of the intervention was not considered to be the major obstacle in implementation by any of the stakeholders.

#### **4.1.3 Pre-intervention conclusions**

This case study represents a proactive intervention, meaning that it represents a response in solving possible problems that might occur in coastal area, defined at the very beginning of the emergence of trends. In this case, there was a high-risk possibility of increasing construction and soil sealing in the coastal zone. The disadvantage of this kind of intervention is that the deterioration of the space already happened in very small amount, and the proposed intervention prevented further degradation. However, according to stakeholder interviews, the advantage is that the focal issue is visible to all stakeholders, and future consequences can be more easily foreseen and assessed. It ensures that the intervention is accepted and supported.

However, some stakeholders deem that the intervention was introduced too hastily without the proper analysis and necessary data. The complaints mostly addressed the intervention as too general, technical and administrative, and lacking the well-developed implementation plan and monitoring activities.

## **4.2 Implementation**

All interviewees find deficiencies in implementation (to a variable degree), both at planning and control levels.

### **4.2.1 Technical capability**

During the development of the law proposal, planning experiences and analyses of spatial plans were used. A large number of analyses was carried out for the needs of individual sectors, but their integration was lacking. The Ministry of Construction and Physical Planning was responsible for the majority of analyses, and its technical capability is considered to be a strength by most of the interviewees. However, some stakeholders pointed out that they did not understand well what was proposed in the Act. Also, stakeholders which were obviously not involved in the process of decision making (experts – architects) and development of the law proposal were dissatisfied with the final product. They emphasized that territorial differences of the coastal area were not considered and that specific terms were not well explained.

### **4.2.2 Data and information**

Data and information were mostly considered to be inadequate. Some stakeholders pointed out that data provided was insufficient, given the complexity and sensitivity of the issue, as well as the indisputably conflicting interests of all stakeholders in the space. Also, it was neglected that the cadastral bases of the sea area are not up-to-date, which has made the planning and protection of the area additionally complicated. A particularly important problem for the coastal management in Croatia is the lack of the unique coastal zone database, which should serve as an important input and tool. Generally, there is a lack of freshly updated spatial data related to the coastal region (hydrographic, seismological, geodetic, geological, geophysical, geotechnical) making it hard to carry out the necessary research. The discrepancy between the coastline data held by two different authorities additionally complicates the delineation of the coastal zone. Therefore, it is necessary to develop a unique database using existing data and to develop new databases. A more accurate data would provide much needed support for all stages of the intervention development and implementation activities.

Regarding the provision of information to all the stakeholders, the Ministry emphasized the legal requirement of organizing public consultations and discussions between governmental bodies and other stakeholders.

### **4.2.3 Participation**

There is a general disagreement between the responses provided on the issue of participation of different stakeholders.

In 2004, the intervention was introduced into official legislation as a special regulation which has been a part of the law in the field of physical planning since 2017 (2017 Physical Planning and Construction Act and 2013 Physical Planning Act). According to the Ministry, state administration bodies and other invited entities participated according to the way laws are drafted and enacted in the Republic of Croatia. The public participated through public consultation, but only after 2013, since the obligation of public consultation was introduced after Croatian accession to the EU. Therefore, the special regulation from 2004 did not go through the public consultation process. The same year, an emergency decree on regulation and protection of the coastal zone was brought by the Government. Although emergency decrees are being enacted without public hearings, in this case the stakeholders from the public authorities considered it to be positive, since the problem needed a quick and adequate solution.

Most complaints regarding the participation of different stakeholders came from the civil associations (NGOs), saying that the interested public cannot really participate in the decision-making procedures although there is a statutory public consultation, and that not all stakeholders are involved in the process. Local community therefore feels excluded, lacking the feeling and responsibility for the problem, as well as the motivation to support implementation.

This intervention presents a top-down approach, which can provide fast and quality solutions in the case of strong and benevolent political leadership. However, the lack of a bottom-up approach led to negation of local ideas and differences. The law has not been adequately adapted to specific needs of distinct regions. Also, it is important to strengthen the participation of expert groups and civil associations in decision-making.

### **4.2.4 Strategic vision**

All stakeholders generally agreed that the initial strategic vision in 2004 to restrict the increasing construction and to protect the coastal zone was good. However, throughout the years, the numerous law amendments significantly loosened the primary restrictions. Initially, there were very strict regulations on the expansion of construction areas within the PCA (today it is a restricted area<sup>3</sup>) outside the settlement zones, mostly related to existing densities inside the settlements. However, since there is no strict methodology of calculating

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<sup>3</sup> Until Amendments to Physical Planning Act in 2017, PCA was a 300 m offshore and a 1000 wide terrestrial belt. Following the Amendments, PCA was expanded to include the whole area of coastal administrative units (cities and municipalities) encompassing marine area. Former PCA became the restricted area.

urban density, individual interpretations of the regulations are possible. Furthermore, according to the Legalisation Act from 2011, a big majority of the holiday homes which were illegally built in the coastal zone in the second half of the 20<sup>th</sup> century has been legalized without checking spatial criteria. Therefore, the problem of the existing illegal constructions was partially solved by their legalization but further illegal construction has not been adequately stopped.

Therefore, most of the stakeholders think that the initially strong and positive strategic vision somehow weakened. The primary cause is the lack of implementation control mechanisms.

#### **4.2.5 Institutional coordination**

County institutes for physical planning have the authority to develop regional spatial plans. Also, they used to supervise the development of local spatial plans. According to the law from 2007, approval of the local plans was given by the county prefect upon the previously obtained consent of the county institute for physical planning, while the Ministry issued the consent for the plans in the PCA. Today, following law amendments from 2013, the Ministry still has to give a *consent* for spatial plans in the PCA, while county institutes only provide *opinions*. All complaints related to these opinions can be send to the Ministry of Construction and Physical Planning. This way, the monitoring of the implementation has become more centralised. According to county authorities, the Ministry does not have enough capacity to supervise regional and local level activities. Therefore, stakeholders representing county institutes for physical planning think that the monitoring level of implementation has deteriorated. Furthermore, the existing institutional coordination between local governments, regional spatial planning offices and the Ministry is considered to be unsatisfactory.

Better coordination between sectoral ministries is also needed. There is a problem of overlapping competencies, rights and responsibilities, which leads to a lack of coherence in public policy making and a lack of necessary harmonization of the spatial requirements of sectoral strategies at all levels. Also, introduction of new steps to the development process of spatial plans is not yet fully understood by other Ministries, so their answers to inquiries are sometimes written according to old (invalid) laws.

#### **4.2.6 Institutional leadership**

The Government of the Republic of Croatia, specifically the Ministry of Construction and Physical Planning, was in charge for the introduction of the law and the Regulation on PCA as an emergency decree, which defined the Protected Coastal Area. However, the role of institutional leader for implementation of the intervention was given to local and regional authorities. Since county institutes are today only obliged to give opinions on spatial plans, their role in implementation control weakened. The Ministry represents the highest authority but without enough capacity for adequate control. Therefore, the role of institutional leader

has become somehow unclear. It seems that the local authorities represent the main decision makers since they are in charge of making, managing and monitoring of the local spatial plans. However, local authorities are being accused of close collaboration with private investors, which do not support protective measures of the PCA. That is regarded as the main reason for the weak success of the intervention.

Some stakeholders also emphasized that the Ministry of Physical Planning and Construction does not provide enough space for fruitful participation of other stakeholders (especially the ones representing public interests). Stakeholders coming from expert groups, which are not included in decision-making, mentioned the lack of expertise in the Ministry regarding determination of specific local needs.

#### **4.2.7 Political will**

The role of politics in configuring the shape of the intervention, its focus, pace and resources is very important since the Ministry is the highest decision-making body in spatial planning. In the initial phase of the intervention, the political will to protect the coastal zone from increasing construction and soil sealing was strong. The term “sustainability” was stressed in the law and sustainable development was named a basis for spatial planning of the coastal area. However, since such strict regulations, as they were in the beginning, were not well received by private investors and local land owners, throughout the years the restrictions have utterly loosened. Stakeholders representing expert groups and civil associations deem that numerous amendments, unfavourable in sense of sustainable land use and spatial planning but favourable for housing market, were brought in the recent years because current leading parties aim to collect pre-election points. Some stakeholders infer that some local authorities, which are responsible for the development of local spatial plans, mostly encourage extension of the construction area outside settlements, because increased housing increases taxes and income. Political interests therefore interfere in implementation of the PCA, most notably by identifying and expanding mixed-use and tourist-purpose construction areas.

It is a general perception that politics is too involved in decision-making at the expense of the public interest, while the determination of public interest is not clearly regulated by regulations. The Ministry keeps supporting and promoting the sustainable land use and spatial planning. However, it seems that the strong housing market and a desire for profit are preventing an entirely successful implementation of the PCA. Private investors probably had an influence on the local politicians by persuading them to loosen up the regulations. This problem could be addressed by raising the awareness among local population to put more pressure on politicians, which should proclaim stronger regulations against negative effects of the housing market.

However, it should be noted that although most stakeholders, especially civil associations and spatial planners, marked the current political will as the main obstacle for successful

implementation of the PCA, some stakeholders representing academics argued that the main problem of implementation is related to the lack of expertise and knowledge, not politics. Political will is strong and every political party states that the protection of nature, coast and cultural heritage is of utmost importance in spatial planning.

#### **4.2.8 Implementation conclusions**

In this case study, since the PCA is part of legislation, the highest governing authorities in the country, i.e. the Government and the competent Ministries, are responsible for the development of the intervention. Therefore, in order to write a good law proposal, the authorities needed to be well equipped with experts and necessary data. Stakeholders from public administration claim that the expertise used in the drafting of the document was good, however, stakeholders outside the public administration bodies are not satisfied with the level of capacity in the competent Ministries. Therefore, we can conclude that the initial political will was good, but the intervention itself was probably drafted too quickly and without profound analysis of the relevant data (which are currently sparse as well). Furthermore, insufficient institutional coordination and lack of monitoring and control weakened the implementation.

The implementation control of spatial plans is today under authority of the Ministry. Stakeholders representing regional authorities claim that implementation control would be better if it stayed in the jurisdiction of county institutes for physical planning, which point out to have a better overview on the regional and local issues. Furthermore, county and local level offices are in charge for building permit issuance, while State Inspectorate performs building inspection. In this context, it is important to highlight multi-level governance as an important aspect in coastal zone planning, so the vertical cooperation should be upgraded.

In conclusion, a better cooperation between public institutions and a better division in terms of management and governance should provide an integrative approach, which is crucial when dealing with interventions that affect several sustainability dimensions and diverse stakeholders. Also, a greater involvement of stakeholders from both public and private sector would ensure better support for the intervention. As it is today, the intervention has a good vision, which has been inscribed in the Physical Planning Act. However, in practice, regulations are often misinterpreted or applied. There is a need to put in place effective mechanisms into law regulation and monitoring and sanctioning systems.

The biggest obstacle for successful implementation of the PCA is the influence of housing market. Since Croatian coast is very popular with tourists, the development of new touristic capacities, mostly private accommodation, is increasing every year. It is important to ensure that this economic development goes in line with sustainability goals.

## **4.3 Sustainability assessment**

### **4.3.1 Planning and development culture**

The most important impact of this intervention was introduction of the term “protected coastal area” into legislation. This way the basis for further actions was put in place. However, as it was already described, the successful implementation was not entirely accomplished. First, the regulations utterly loosened throughout the years, and following the Legalisation Act from 2011, numerous illegal objects constructed between 1968 and 2011 (mostly holiday homes) were legalized.

Introduction of the PCA did not bring significant changes in the relationships between stakeholders. It did not introduce any new stakeholders. However, some stakeholders might have been excluded – most notably the ones related to activities which are prohibited in the PCA outside the zones of settlements, e.g. industry, mining, waste management.

Regarding specific changes in planning culture, some changes were noted in governance bodies. The Ministry is the highest governing body and it controls the incorporation of the legal provisions of the PCA into plans, but it does not monitor the implementation of the provisions of those plans. County institutes for physical planning have lost part of their authority related to supervision of the development of regional and local spatial plans. The coordination and implementation control did not achieve the desired effect.

Stakeholders from local authorities pointed out that the introduction of the PCA resulted in better spatial planning in the coastal area. New measures and procedures were identified: defining of boundaries of the maritime domain, concession of certain areas, beach projects, ports of all categories, arranging of anchorages, coasts, promenades and other public spaces. Also, the role of environmental monitoring, especially marine, has been emphasized.

The introduction of PCA required the amendments to existing spatial plans or development of new spatial plans. However, new steps in the process of developing a spatial plan were not well explained and fully understood by all Ministries. Therefore, the problems in communication might occur. The overall problem in Croatian legislation is that numerous and frequent changes often cause confusion and slow down the implementation process.

Stakeholders from civil associations, academy and private companies emphasized the issue of interfering of politics and private investors in spatial planning. The influence of the housing market on governance authorities is too strong, threatening the sustainability of the area. However, the introduction of PCA certainly did bring positive changes in the planning system, or at least provided that the situation remained the same. If never implemented, interviewees mostly assumed that the illegal construction and soil sealing would be even more expanding, which would lead to eventual devastation of the coast.

### **4.3.2 Economy**

The definition of the PCA in the Physical Planning Act does include the paragraphs about the economic sustainability, mostly referring to supporting traditional activities, especially agriculture and fishery. However, interviewees did not refer much to the economic dimension of sustainability, and it seems that this specific intervention did not have any significant impact on economy of the coastal zone. However, since the intervention is generally regarded as positive by most of the stakeholders, its possible impacts on economy are also presumably addressed in a positive way. One stakeholder from local authority specifically pointed out that sustainable economic development is possible to achieve by well-managed spatial planning, given that the facilities provided by the regulations are compatible with the economic structure of the area beyond the protection area. Therefore, well-developed multi-sectoral analyses should provide valuable information on the territorial structure and economic needs, and sensible spatial planning can result in both successful economic development and nature protection. Positive impacts also include the preservation of the coastal natural resources and the development of various aspects of tourism. Positive outcomes are ensured by assuming that clearly defined exceptions (related to construction) are established by social interest.

Although restrictive regulation on building in the PCA could have a negative impact on the housing market, the actual situation is showing that this impact has not been particularly strong.

On the other hand, one stakeholder who deals with local spatial plans pointed out the negative impact of the PCA on agricultural development due to land consolidation difficulties. According to the law, fragmented land parcels intersected by roads are hardly to get consolidated due to distinct restrictions, which therefore prevent the sustainable development of agriculture.

### **4.3.3 Ecology**

The intervention generally had a positive impact on environmental conservation, at least in keeping the land consumption and construction under legal control. Since a comprehensive study on the state of environment in the PCA has not been conducted, specific data is not available. According to the Corine Land Cover data, in the period 2000-2018, the area of artificial surfaces in the coastal municipalities increased by 26.3% and in the restricted area by 17%. However, 75% of the land cover changes related to construction in both coastal municipalities and the restricted area occurred in the period 2000-2006, i.e. before and slightly after the introduction of the intervention in 2004.

Stakeholders mostly emphasized the positive effects, except for civil associations, which showed strong discontent with the observed state of the environment. The reason might be primary the Legalisation Act. However, due to loosened restrictions in the recent years, most stakeholders marked the positive effect as weak. Also, most stakeholders think that effects of

the intervention are generally only temporary, since the regulations change too frequently. Minority thinks the changes are structural since the intervention was introduced as a law in 2004.

Although the environmental impacts are in line with the goals of the intervention, it seems that most of the stakeholders expected more significant changes in planning. The unsatisfactory results might be due to a lack of institutional and professional capacities and specific actions for implementation of protection and conservation measures from the spatial plans, especially at local and regional level. Also, there is a lack of adequate monitoring which would ensure full application of environmental standards. Protection and conservation of landscapes, natural values, cultural heritage and ecosystems determined in the spatial plans find their implementation only in the process of approving the spatial intervention. According to the Environmental Protection Act and EU Directives, environmental impact assessment studies had to be carried out in parallel with the spatial planning process for certain actions, spatial plans at all levels, programs and strategies. There are two types of environmental impact assessment studies in Croatian legislation.

Environmental Impact Assessment is the process of evaluating acceptable intended environmental actions and determining the necessary environmental measures, in order to minimize the impact and to achieve the highest environmental quality possible.

Strategic Environmental Impact Assessment is a process that assesses the likely significant environmental impacts that may result from the implementation of a strategy, plan or program.

#### **4.3.4 Equity**

The social outcomes of the intervention are not as clear and direct as ecological ones. Stakeholders mostly did not recognise the social dimension as particularly important since they primarily addressed the issue of land consumption and increasing construction. It should be noted that sustainable-way of thinking, which includes an impact assessment of the intervention on three dimensions of sustainability, has not been yet well developed in Croatia. Therefore, this might be the reason why most of the stakeholders did not make (any) comments related to social equity of the intervention.

Interviewees which addressed the social issues, emphasized that the intervention encouraged stakeholders to understand the need to conserve natural resources. Positive outcomes are achieved by accepting the view that short-term economic effects (investor income from construction and sales) are not the same as long-term economic effects, and that more construction does not mean more development and income. The conservation of land and natural resources is seen by many stakeholders as a public interest.

Potential negative effects have been primarily related to restrictive terms of construction and possible demolition of illegally constructed holiday homes from the socialist period, which are mostly owned by middle-class families. However, these are mitigated by the Legalisation Act,

which allows owners to obtain legal licence for their house at an affordable price. Social equity might be more endangered by more recent large-scale private incentives which do not tend to comply with the sustainability goals of the PCA (e.g. beach concessions and the construction of apartment complexes). Generally, goals of the intervention should be in line with social equity, primarily by ensuring free access to the coast and passage along the coast and the public interest in the use of the maritime special property.

#### **4.3.5 Balance**

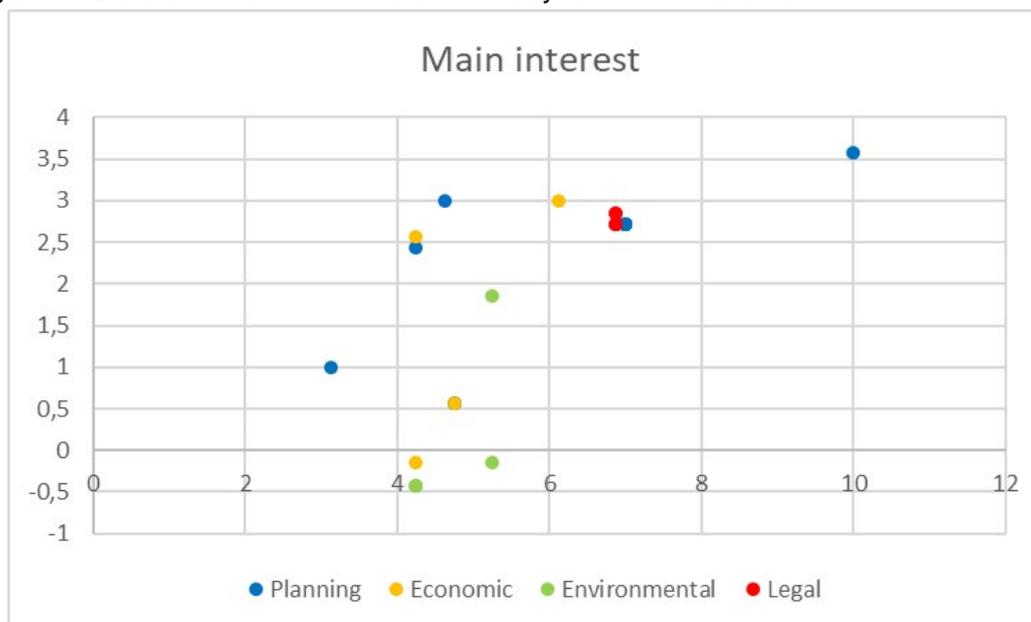
No stakeholder mentioned any innovative practice which was employed in the intervention. However, most stakeholders mentioned that the intervention failed to respond to increasing construction on time. The Legalisation Act from 2011 allowed selective legalization of illegally constructed buildings (if exclusively residential and agricultural) on areas outside the construction area in the PCA, causing possible negative impacts on the protection of space. Furthermore, due to recent law amendments, the original restrictions on construction became utterly loosened.

Civil associations for nature protection were most negative towards the impacts of the intervention, emphasizing that protection of the coastal zone in practice is not efficient at all. However, stakeholders from private spatial planning sector emphasized that the intervention succeeded in restricting urban growth and further land consumption. However, the impact is somehow limited, due to a lack of specific measures and mechanisms for control of the law implementation. State authority stakeholders admitted the existing problems in institutional coordination and cooperation, resulting in mismatch of laws and strategic sectoral documents. Others pointed out the problem of unclear regulations and definitions in the Law and restriction of agricultural development on the islands.

Regarding future challenges, all stakeholders agree that the initial vision of the intervention still needs to be achieved. The new regulations need to be better and more clearly defined, and most importantly, implementation control mechanisms should be put in place. Indicators of economic development should be clearly identified in order to ensure the sustainable use of coastal areas and to reduce pressures that exceed their reception capacities.

According to stakeholders with largely negative attitude towards the intervention impacts, the “winners” are mostly private investors or land-owners (of illegally constructed objects). Authority stakeholders with more positive view on the intervention emphasized that the local authorities and the whole community had a profit from landscape improvement and better protection of land. Named “losers” in the intervention are quite different and depend on the sectoral background of the interviewee. Both regional planning institutes and civil associations regard themselves as “losers”, while state authorities named private investors.

Figure 4.1: Distribution of interests for land selected by interviewed stakeholders



Stakeholders are generally not satisfied or partly satisfied with the way the intervention turned out. The problem of competing interests was solved by loosening the regulations and providing more liberty to private sector and housing market. In order to achieve its primary goal, the intervention should be better defined and regulated. Stakeholders pointed out the need for a comprehensive up-to-date analysis of the effects of implementation. The implementation plan and public interests must be clearly defined.

The stakeholders also advocate for improved participation of the public and expert groups from relevant fields and different levels (scientific, administrative, professional) in decision making. Also, to avoid unnecessary conflicts, introduction of additional criteria for defining the boundary of the restriction area, e.g. relief features - coast slope, altitude, etc. should be considered. Specific regulations should be provided according to specific characteristic of the place.

#### 4.3.6 Multi-stakeholder assessment conclusions

Overall, the intervention was perceived as partly successful. The initial vision of the intervention was good and all the stakeholders greeted the introduction of such a regulation into official legislation. However, in the end it turned out that the intervention is mostly an administrative and technical act, lacking actual implementation plans and control mechanisms. Also, the pressure from the housing market showed to be too strong, so throughout the years the restrictive regulations on construction loosened. The equilibrium between economic, environmental and social outcomes is therefore unsatisfactory. The supported outcomes are mainly the economic ones, but one could ask whether such planning and liberal housing market supports sustainability. The environmental dimension was strongly supported in the beginning, but after the weakening of regulations, the pressure on

environment has renewed. Some stakeholders mentioned that environmental monitoring techniques improved, as well as landscape planning in the coastal zone. However, these positive impacts are often disregarded due to other contrary interventions, such as the Legalisation Act. The outcomes are partly regarded as structural, since the PCA is part of the Physical Planning Act. However, some stakeholders regard it as only temporary intervention, because the regulations are changing very frequently along with the law amendments.

Several changes in the planning and development culture in the area were noted due to introduction of the intervention. Back in 2004, all regional and local spatial plans (on county and municipality/city level) needed to be harmonized with the proclaimed PCA in their further amendments or newer versions. Thus today, all plans are adapted and contain the information on the PCA and the restricted zone.

#### **4.4 Conclusions**

Prevailing opinion of the stakeholders on the success of the intervention can be examined by analysing the Corine Land Cover data. In the period 2000-2018, the area of artificial surfaces in the coastal municipalities increased by 26.3% and in the restricted area by 17%. However, 75% of the land cover changes related to construction in both coastal municipalities and the restricted area occurred in the period 2000-2006, i.e. before and slightly after the introduction of the intervention in 2004. Therefore, it can be argued that the intervention successfully introduced certain regulations into legislation which restricted construction and soil sealing in the coastal zone to some extent. Furthermore, the decrease of building areas within the restricted area in the existing spatial plans at regional and local levels, which was carried out according to requirements in the 2004 Regulation on PCA, was an important initial step for bringing construction spread in this area under control.

In any case, if the Government had not established the PCA, situation in space would have been unregulated and characterised by expanding construction and lacking environmental protection. The top-down approach enabled a fast, strong and direct operation to take place. In a way, it proved to be quite useful since practice often shows that local population takes environmental resources for granted. Unfortunately, people are frequently just interested to achieve a quick profit, in this case, by building and renting private accommodation for tourism purposes. Secondary housing generally represents one of the most important drivers of urbanisation in the Mediterranean coastal areas, including Croatia. The Croatian Ministry of Tourism has also recognised the problem and started to promote development of hotels instead of private accommodation. Construction of hotels consumes fewer resources, space and infrastructure, and therefore it has a smaller ecological footprint. Unfortunately, illegal construction accompanied by later legalisation without criteria for minimum spatial standards (infrastructural and others) represents an obstacle.

However, one should not neglect the importance of the bottom-up approach as well, since it helps to incorporate local ideas into intervention. Outputs of this case study indicate that disregard of local differences and a lack of sufficient public participation led to reduced efficiency and support. Since the coastal area is not homogenous, the universal protection measures showed to be too strict or too loose in particular places. For example, in places where the coastal relief is very steep, the protection zone of 1000 m may be too strict, while in the places where the coast is much flatter, it may be too loose. Islands face particular problems in this regard.

One of the main problems related to the successful implementation of the intervention is the lack of accurate and comprehensive data on the natural and social properties of the coastal zone, which would provide accurate delineation of the protected zone and facilitate differentiation between regions. Moreover, in the implementation process, the biggest challenges of the spatial planning system have come into light. Interviewers from county institutes for physical planning claimed a weak implementation potential and deregulation of the control system under the excuse of procedure simplification (reduced control on adherence of local spatial plans with the higher-level plans). Namely, there is a lack of efficient implementation control mechanisms. Changes in urbanisation related to secondary housing are mostly being reported only at the level of local spatial plans. Common urbanisation indicators used for implementation control and monitoring at the state level do not exist. However, control over spreading the building area in PCA is established through the Ministry's approval on the spatial plans. Furthermore, no spatial planning system is trying to understand and differentiate typologies of informal construction<sup>4</sup> in order to prevent this phenomenon. The existing mechanisms are put in place only to reactively deal with the resulting changes in space. It is a common problem of all spatial planning systems which deal with the informal construction issue. This intervention however has a potential to reassess the interaction between formal planning system and informal initiatives. Most illegally constructed objects were legalized according to the Legalization Act from 2011, and works are being done to improve the poor infrastructure in the settlements. The chance for improving the situation in space is *urban remediation* as a set of planning measures to improve the character of built-up areas devastated by illegal construction (according to the PPA).

In conclusion, this intervention has a big potential because it rightly recognised the coastal area as the area of the strongest urbanisation pressure in Croatia. The PCA presents an example of good practice in spatial planning. Despite aggravating standard planning environment, characterised by strong private initiatives generated by the development of tourism, and a history of informal construction, the intervention successfully introduced sustainable spatial planning and protection of the coastal zone into planning legislation. However, there are still some challenges to be addressed. The concept of the PCA needs to

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<sup>4</sup> The term "informal housing" can include any form of shelter or settlement (or lack thereof) which is illegal, falls outside of government control or regulation, or is not afforded protection by the state

be further improved and adapted to local differences, primarily by strengthening bottom-up approach. Also, there is a need for better transferability and connection with the causes of urbanisation. Furthermore, the implementation control of construction could be more regulated. There is a need to introduce some type of a national indicator in order to monitor and control construction and further developments in the coastal zone.

#### **4.5 Implications for sustainable urbanization and land use**

This case study sought to illuminate the black box of development practices within a particular territory in Europe, focusing on a particular intervention which changed, or attempted to change, these practice to more sustainable ends. The primary source material was in-depth interviews with stakeholders directly involved in decision-making on spatial development, on crafting or applying the intervention, or both. Through their candid explanations, it was possible to provide a nuanced, and often critical, account of the origins, mechanisms and impacts of the intervention. As can be read above, the results show stakeholders in agreement on some issues and disagreeing on others.

The purpose of this final section is to give voice to the case study researchers by asking them to specifically reflect on the key questions posed to the project at its inception. The ideas and opinions expressed in this final section – printed in italics – are, therefore, solely those of the authors.

#### **To what extent did short-term thinking weigh up against concerns of long-term economic, ecological and social vitality?**

*The process of urbanisation is restricted in the PCA and its restricted area, but spatial planning at the local level is often exposed to the pressure of individual profit interests, particularly the housing market. Secondary housing at the Croatian coast is driven by private tourism initiatives, which generate secondary income for the local population. This complex situation results in “aggressive” land consumption in the most valuable areas of Croatian coast.*

#### **Was there a tension between sustainability at different levels of scale (e.g. a locally sustainable development having unsustainable attributes at the regional level)?**

*There are slight oppositions between county institutes for physical planning and local authorities. County institutes represent the expert institution of spatial planning which promotes sustainable spatial planning and protection of land, while some local authorities often regard planning only from an economic perspective, e.g. related to increasing income and profit from taxes. This situation in some areas results in tensions in vertical cooperation between public bodies.*

### **To what extent do they enjoy popular support or consensus among stakeholder?**

*All stakeholders generally agree that the space should be protected, but they mostly consider the regulation to be not well defined and regulations to be too loose, or on other hand, they emphasize the lack of place-based approach.*

### **How can urban sprawl be contained and which instruments can be used to do that?**

*Urban sprawl can be contained by introducing regulations into official legislation. This way the interventions are binding for all stakeholders. In this case study, the introduction of the PCA in the Physical Planning Act was welcomed by most of stakeholders.*

### **How can the impacts of land take/soil sealing be limited?**

*Some limits for the restricted zone within PCA are prescribed by the PPA for planning tourism and sports facilities (which are considered to be the greatest consumers of space):*

- not more than 30% of an individual building plot should be built-up*
- at least 40% of each building plot should be developed as a park and natural greenery*

### **How can the place-based approach and territorial cooperation be used?**

*Although the place-based approach was not used in this case study, several stakeholders mentioned its importance. Both physical-geographical and socioeconomic characteristics of the Croatian coastal area are not homogenous. Therefore, improved identification of specific local needs according to detailed analysis of territorial characteristics is required. The current regulation of the restricted area regards the whole coastal area as a whole. It is suggested that certain landscape features should be taken into account, especially elevation and slope. However, one should be careful not to make these additional criteria too complicated since it may lead to problems in defining necessary measures and actions.*

*Territorial cooperation should be provided by the harmonization of spatial plans of neighbouring municipalities and counties, and by common implementation plans and control mechanisms.*

### **How can we benefit economically from measures to limit land take/soil sealing?**

*In the Croatian coastal zone, land is a very valuable resource. Due to scarcity of fertile soils, suitable land for agriculture should not be easily consumed by construction and soil sealing. Also, preserved nature and traditional agricultural Mediterranean landscape are part of the cultural identity and a valuable resource in tourism, especially rural and eco-tourism. Therefore, measures to limit land take can support the development of sustainable tourism and agriculture.*

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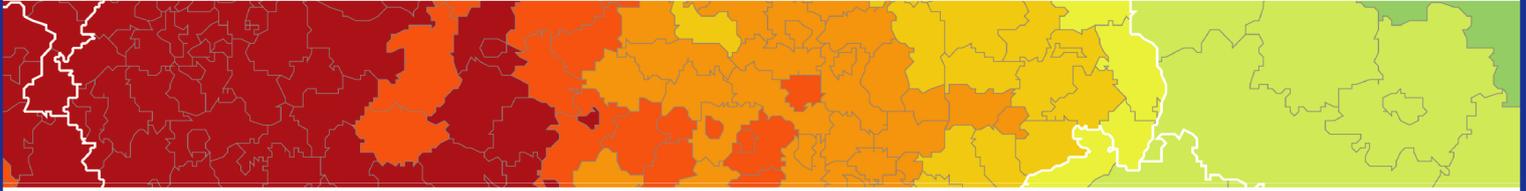
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