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## State of the Art of Coastal and Maritime Planning in the Adriatic Region

# ***SYNTHESIS REPORT***



**PAP/RAC**  
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## Executive Summary

This synthesis report was subcontracted by the Regional Activity Centre of the Priority Actions Programme (PAP/RAC) within the framework of the INTERREG IIIB CADSES PlanCoast project. It compares and assesses the current legal framework and practice of spatial planning and other management approaches in the Adriatic region. Particular focus was put on the off-shore areas and the new emerging instrument of **integrated maritime spatial planning**, which is promoted by the EU through its Future Maritime Policy<sup>1</sup>.

Very few countries world-wide have developed a regulatory framework for maritime spatial planning so far. Adriatic countries examined in this report have only started making first steps in this direction.

Various space conflicts in the Adriatic region have been identified by this report. However, from national perspective these are mostly limited to the land-side of the coast and harbour areas. Despite the acknowledged growing crowdedness of off-shore areas, with exemption of gas terminals in the Gulf of Triest (Italy/Slovenia/Croatia) no urgent problems are reported that could be triggering the obligatory maritime spatial planning in the Adriatic countries.

However, from a transnational perspective represented in this synthesis report it can be seen that it is only a matter of time that space conflicts in the Adriatic Sea will escalate to the point when major conflicts are inevitable. In particular it is the economic development through energy extraction, commercial sea traffic and aquaculture which collides with the sustainable vision of the region as a naturally intact tourist destination. Given the still very difficult geo-political situation on the Balkan Peninsula, international tensions are preassigned. That is why the PlanCoast project and this report in particular strongly advocate the development of an appropriate legal framework and an all-embracing stocktaking of off-shore uses and conflicts leading to an integrated maritime spatial plan for the entire Adriatic Sea.

The observance of the current legal framework related to spatial planning, and spatial planning on the sea in particular, vary a great deal among countries. Long-term sustainable development intentions and a holistic approach are incorporated at least nominally in quite a number of national laws, strategies and other documents. Much more problems appear in practice - in the participation of stakeholders, proper co-ordination of various administrative bodies and the integration of land and sea policies.

In countries like Italy (represented here by the Emilia Romagna region) and Slovenia, the *ius communis* of the European Union has inspired steps towards integrated planning approaches. Italian coastal regions develop integrated Coastal Action Plans for safeguarding the sustainable coastal and marine development. Slovenia is the only country in the region which has introduced legally the possibility of maritime spatial planning

Croatia, Bosnia & Herzegovina, Montenegro and Albania are among those countries in transition which are endowed with valuable coastal resources but not yet enough restrictive mechanisms of their save guarding. The terrestrial spatial planning systems are currently undergoing deep changes to adapt to new political and economy conditions. Negative phenomena like corruption and illegal land claim proliferate when old systems cease to exist, and new didn't yet have time to establish. This transformation time could however be also seen as a chance of introducing new instruments and approaches like in particular the ICZM and

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<sup>1</sup> EU BLUE BOOK 2007, 9

Maritime Spatial Planning. Some positive development can be observed in Montenegro, where a public agency “Morsko Dobro” is managing the entire national coastal zone on the basis of private public partnerships and currently preparing the first Montenegrin maritime spatial plan for the Boka Kotorska bay. This and other PlanCoast pilot projects are going to provide pioneer best practice examples on maritime planning in the Adriatic region.

The mistakes made in the terrestrial spatial planning should by no means be transmitted to the sea. In the absence or ill-working spatial planning system, like the Bosnian or Albanian one, Strategic Environmental Assessment (SEA) or procedures like the Water Basin Management planning could provide a satisfactory substitute of Integrated Maritime Spatial Planning.



# 1. Introduction

The Adriatic Sea is in many ways one of the most valuable inland seas of the world. A place of outstanding natural beauty, attracting millions of tourists a year, a desirable place to live and work for migrants from other regions and a busy economic centre. All this results in a very crowded space, both on the land but also increasingly on the water. Off-shore uses such as transports, energy generation, aquaculture and nature protection are expanding.

New approaches are needed to arbitrate between these conflicting or competing activities. Integrated Maritime Spatial Planning is a planning instrument promoted by the EU Blue Book on Future Maritime Policy, which can provide a neutral tool of conflict resolution and achieving sustainable development of coastal and marine zones.

**Integrated Marine Spatial Planning** has been officially supported by the European Union since the 2007 *Blue Book on Future Maritime Policy*. It combines the tools and procedures of terrestrial spatial planning with the principles of Integrated Coastal Zone Management (ICZM).

ICZM is an approach known as *"the mechanism of problem resolution and securing the sustainable development in the coastal zones"*. It is not limited to management only, but understood as a cyclic process of policy-making: information collection, conflict resolution, management, decision-making and monitoring of the implementation.

Through its combination of ecosystem approach, involvement of all stakeholders and application of area-wide GIS data, the integrated approach is not only applicable in the coastal areas, but a perfect tool for maritime planning too. Moreover, strong economic, social and environmental land-sea interactions are indisputable.

That is why, in the new definition of Integrated Maritime Spatial Planning, on-shore coastal strip and off-shore areas reaching as far as the EEZ and beyond, are equally represented.

ICZM and Marine Spatial Planning are currently acknowledged and recommended management approaches in the EU, and here notably by the Mediterranean transnational organisations such as UNEP-MAP. Nevertheless, there is still a lack of experience, instruments, tools and capacities available to the policy makers and practitioners to implement these recommendations.

The PlanCoast (2006-2008) INTERREG IIB CADSES project attempts to fill this gap from the spatial planning point of view. The gathering of the relevant national information in order to make an assessment of the various uses was the first step, finalised among others by this synthesis report. As a next step, solutions will be sought among the different interests in course of the PlanCoast **pilot projects**. These will be in the Adriatic region for example a new, integrated spatial plan for the Palombina Beach (Ancona, Italy), new guidelines for coastal spatial plans in Slovenia, a maritime spatial plan of Boka Kotorska (Montenegro) or a GIS data bank of the Albanian coast.

To capitalise on the experience of these pilot projects a Transnational Handbook will be prepared within PlanCoast, which will give guidance to staff members of the authorities involved on how an integrated coastal and maritime spatial planning can be implemented.

The following synthesis report on the Adriatic Region was subcontracted by the Regional Activity Centre of the Priority Actions Programme (RAC/PAP) of Split, Croatia. It is designed as a report to the European Commission about the ICZM activities of the Mediterranean region. It will summarise national reports on the current legal basis and practice of coastal and maritime spatial planning in the Adriatic countries being partners in the PlanCoast project. These partners are: Emilia-Romagna region (Italy), Slovenia, Croatia, Bosnia & Herzegovina, Montenegro and Albania.

The aim of the summary is to show similarities and differences in the national approaches to coastal and maritime planning, and on the basis of the identified good practices, drawbacks and gaps propose measures of improvement.

## 1.1 Short Description of the Adriatic Region

The geo-political constellation of the Adriatic region is extremely heterogeneous, with the founding member of the European Union, Italy, on one side, and on the other side parts of the Balkan melting pot – each of them different from another in almost every possible way, and yet still connected by certain cultural and historical bonds. Also in terms of natural conditions the countries vary greatly, as can be seen in the Map 1.

The **Adriatic Sea** is the part of the Mediterranean Sea separating the Apennine peninsula from the Balkan peninsula. The Western Adriatic Region belongs to Italy while the Eastern coast runs along Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania.

The Adriatic Sea is 820 km long and roughly 160 km wide. At its widest point, on the height of Durrës, its width reaches 220 km, while in the Strait of Otranto the distance between Italy and Albania is only 71 km.

The western, Italian, shore is generally low, in the north-west merging into the marshes and lagoons on both sides of the protruding Po river delta.

Further north the landscape gets rockier and steeper. The **karst** (Slovene *kras*, Croatian *krs*, Italian *cars*) meaning a stony, unfertile area, occupies a considerable portion of the Adriatic littoral. Due to their base consisting chiefly of limestone rocks, rivers of the Adriatic catchment area are short, with frequent rapids and waterfalls, including sections formed as canyons.

From the south of the Istrian peninsula, which is divided between Italy, Slovenia and Croatia, a fringe of over thousand islands extends as far south as Dubrovnik. The Dalmatian islands, which are long and narrow (the long axis lying parallel with the coast of the mainland), rise rather abruptly from the sea, with the exception of a few wider islands like Brač or Krk.





Map 1: Adriatic Region

On the eastern mainland, there are numerous geomorphologic features, such as the magnificent inlet of the Gulf of Kotor (Boka Kotorska) – with 30 km length the largest in the region. Lofty rocky mountains covered with black pines gave name to the Montenegro country.

The Albanian coastal zone is characterised by versatile structures such as cliffs, grottoes, caves, slopes, natural harbours, bays and wetland areas. The alluvial plains and wetland areas of the northern coast between Shkodra and Vlora have been considerably altered to support human settlement and activities, while the rugged constitution of the southern coast has so far preserved its wild character.

The climate is characterised by very warm, dry summers and mild, humid winters. The bora (north-eastern wind) represents danger to navigation in winter. Other notable winds are sirocco (southern wind) bringing rain in the winter, and maestral (western wind) bringing clear weather in the summer.

Major cities of the Adriatic coast include Brindisi, Bari, Pescara, Ancona, Ravenna, Adria, Venice and Trieste in Italy; Izola, Koper, Piran and Portorož in Slovenia; Umag, Poreč, Rovinj, Pula, Opatija, Rijeka, Senj, Zadar, Biograd, Šibenik, Trogir, Split, Makarska, Ploče and Dubrovnik in Croatia; Neum in Bosnia and Herzegovina; Herceg Novi, Kotor, Tivat, Bar, Budva in Montenegro; and Durrës and Vlora in Albania.

## 2. Major Issues in the Adriatic Region

### 2.1 Emilia-Romagna

#### ***Urbanisation***

The ancient human settlements of the Emilia-Romagna part of the Adriatic region have created original forms of rural landscapes and cultures based on mostly outbound trade and co-operation. Unfortunately, widespread urbanisation (linear cities) and agricultural and industrial development have strongly reduced biological diversity and cultural identity of the landscapes of this region.

#### ***Biodiversity loss***

Population increase, both residential and temporary, triggers land-use conflicts in the Italian coastal areas. Low-impact destinations are often replaced by other, more intensive and profitable in the short-term activities, which however undermine coastal potential in the long run, thus reducing its quality, social and economic value. Strong seasonal variations of the tourist activity and related environmental pressures represent an additional complication for the sustainable development.

Of the 700,000 hectares of marshes and coastal lagoons found in Italy in the early 20<sup>th</sup> century, in 1972 only 192,000 remained and less than 100,000 in 1994, while 75% of dune systems have disappeared since 1960.

At the same time, those sensitive coastal ecosystems show a quite high economic productivity, as they shelter reproduction and growth areas for great part of fish and shellfish species of marketing interest. A relevant percentage of catch of these species comes from these areas, where also half of fishing jobs are located.



## **Fishing**

Fishing, sea shipping and tourism put at risk some of the most sensitive and precious habitats, such as lagoons and river delta environments. Adjusted to human needs, they have been largely developed or are in a heavily degraded state. Many animal and vegetable species associated to them are now listed on red lists.

## **Aquaculture**

Since the mid-70s, marine aquaculture in Italy has developed considerably, now accounting for 18% of the total aquaculture production in the European Union. Mussel farming produces 100,000 tons, mollusc farming 48,000 tons, while fish production grows steadily, reaching around 65,000 tons, mainly bass, bream and trout. The current trend in aquaculture is to reduce farms on land or along the coast and develop deep-sea activities – the so-called **mariculture**.

Mariculture is a branch of aquaculture allowing to grow fish in their own natural environment using large metal cages. It is a good alternative to traditional fish farming in concrete tanks or ponds. Production and investment costs in mariculture are lower in comparison to land-based fish farming, also considering that the direct use of the sea guarantees a better quality of water, significant reduction in fish disease and thus lower environmental impact. Still, considerable environmental problems may occur, like some management problems, in particular concerning the location of the cages in deep sea.

## **2.2 Slovenia**

### ***Littoralisation***

The Slovenian extremely short coastal region with a length of 46.6 km is densely urbanised, the most prominent being the Koper–Izola–Piran conurbation. The pressure on the narrow coastal belt is enormous.

The demand for real estate is strengthening, particularly in Slovenian Istria, and recently also in Kras. The number of building permits issued is increasing. The real estate in South Primorska is among the most expensive in Slovenia, and constantly rising due to a high demand for holiday homes.

In the hinterland of large cities, there is a distinctive urban sprawl and much unused space capacity within the settlements which could be used better if degraded urban areas were rehabilitated and re-urbanised.

Dispersed settlement is encouraged by large public investment into road network and public utility infrastructure in peripheral areas, which facilitates rural development.

### ***Tourism***

Tourism is the most important economic activity in the Slovenian coastal region. It is mainly developed in the municipalities of the Slovenian Istria (particularly in the Municipality of Piran) and, to a lesser extent, in the Kras and Brkini regions.

The tourist offer is concentrated in the coastal strip with a versatile and high-quality wellness and spa offer, business tourism, gaming and nautical tourism along with various sports and recreation offer (swimming, sailing, surfing, scuba-diving, etc.). Despite these advantages, there is still much unused potential for the development of sustainable tourism and service activities in the facilities of cultural heritage. The general tourist infrastructure is poor, especially in the the Istrian hinterlands, Kras and Brkini municipalities.



The natural conditions of the Slovenian coast favour the development of nautical tourism and the construction of modern tourist harbours – marinas. The Portorož Marina was awarded the European eco-label – the Blue Flag – already in 1995, and the Izola Marina in 2000.

The problems of nautical tourism and marinas arise mainly due to spatial conflicts with other uses, as the competition over the limited coastal land is strong.

### ***Maritime transport***

Owing to its harbour, Koper is becoming an increasingly important development centre of the country and the wider region. In fifty years of development, it has grown to an important international harbour. The opportunities for the development of maritime passenger transport are, however, underexploited. A maritime passenger terminal, which is becoming an important element of tourism development of the region, is currently being established in Koper.

Together with the growing maritime traffic in the Northern Adriatic the problem of navigational safety is aggravating. In Koper specific on-shore conflicts arise related to the further complicated expansion of the port. Also, environmental pollution problems (e.g. air pollution from the dumping areas of dry bulk cargo) can not be ignored.

### ***Fishery & Aquaculture***

The Slovenian Adriatic catchment area was drastically reduced after gaining independence in 1991 (approximately to 180 km<sup>2</sup>) due to the establishment of the maritime national border with the Republic of Croatia. Additionally, several protected marine areas were created with restricted fishing activity. This, together with the general depletion of fishery resources in the Northern Adriatic, resulted in a drop in fish quantity and quality for Slovenia.

Aquaculture is becoming increasingly important. However, there is a problem of restricted space for the development of aquaculture. In accordance with the Marine Fisheries Act, two fishery

reserves have been established for the protection of fishing resources and aquaculture: the Portorož fishery reserve, comprising the inner part of the Piran Bay and the salt pans; and the Strunjan fishery reserve comprising the coastal sea at the Strunjan Cape, the inner part of the Strunjan Bay, the lagoon and salt pans.

### ***Fresh water management***

In South Primorska the most important factor of water pollution is urban waste water. The level of water pollution is especially high in the coastal part due to the high settlement density and infrastructure (the Port of Koper, marinas). The entire South Primorska has been identified as a vulnerable area and, therefore, stricter criteria apply to urban waste water treatment systems in agglomerations. The volume of waste waters is increasing due to the increasing number of tourists and internal migration.

Implementation of waste water collection, drainage and treatment infrastructure in the Kras region is very time- and cost-demanding due to necessary excavations in limestone and unfavourable terrain configuration (no constant declines), which dictates a larger number of pumping stations and smaller treatment plants.

Due to natural features of Kras and Slovenian Istria, the sources of drinking water are relatively scarce. The existing water resources of the Kras area are exposed to pollution because of the incomplete wastewater treatment infrastructure and traffic network (potential accidents), as well as the physical characteristics of the karst.

Water consumption in Slovenian Istria is excessive, especially due to the high demand for water by tourists in summer and the growing living standard of the locals. Water losses in the pipelines are still considerable (29%).

### ***Nature protection***

Ecologically significant areas cover a large part of the coastal strip, the coast and the sea. There are 29 Natura 2000 areas and 36 ecologically important areas in the South Primorska region. In the coastal municipalities there are many protected areas: two landscape parks (Sečoveljske soline and Strunjan), some nature reserves (Strunjan, Strunjan-Stjuža, Škocjanski zatok) and nature monuments. However, in some protected areas the management has not been regulated (Strunjan Landscape Park, Debeli Rtič, Madona Cape), there is inefficient protection regime, unsatisfactory financing and missing infrastructure.

Anthropogenic modification of the coastal area increases, resulting in the loss of coastal habitats, destruction of nesting areas close to the shoreline, disturbance or interruption of migration routes of animal species, and the fragmentation of habitats not providing enough space for the survival of some species.

The outstanding natural and cultural landscapes also change as a result of the large infrastructure projects (motorways, marinas, harbours) and increasing urban sprawl in the coastal area. Unregulated parking lots, neglected parts of bathing sites and unarranged footpaths to the sea degrade the image of the coast. This spatial disorder is the consequence of the inconsistency of economic, social, cultural and environmental aspects of spatial development of the area.

## 2.3 Croatia

### **Urbanisation**

Croatia has a very long coastline on the Adriatic Sea. More than 1,000 large and small islands fringe the coast and form part of Croatia's territory. At present only a relatively modest portion (14.3%) of the Croatian coast is urbanised. In the past decade, however, a major migration trend towards the coastal areas has started. There is a new type of residential development, which deserves special attention: secondary residences and summer homes. Until the 1970s very limited, it has since increased enormously and continues to grow.

According to a governmental scenario, in the next 10-20 years almost the same length of the coastline will be developed as has been done by all the generations that have inhabited the Croatian coast so far. As the physical constitution of Croatian coast sets natural limits to construction on approximately 50% of its length, it can be expected that the other 50% will soon be affected by urbanisation. The recent urbanisation trend is towards a legally approved construction. A situation that is currently still under control could easily turn into an unsustainable development pattern, characterised by linear coastal urbanisation.

Currently, one of major adverse effects of the coastal urbanisation is the lack of adequate water treatment facilities, and therefore a significant contribution to the pollution of coastal waters.

### **Tourism**

Tourism is increasingly becoming one of the most important sectors of the Croatian coastal economy. The tourism development concepts are changing from the previous mass tourism model to a more quality-oriented one. Unfortunately, the sustainable tourism development is not equally distributed over the entire Adriatic coast but is still largely concentrated in some areas like Istria and Dubrovnik, while in most areas on the southern coast more or less uncontrolled tourism growth patterns prevail.



### ***Fishery and aquaculture***

The country's very long and highly developed coastline with numerous islands, bays, coves and cliffs provides good natural conditions for fishing, but the Croatian part of the Adriatic is poor in fish compared to some other parts of the Mediterranean. In the 90's there was a considerable increase in fishery industry investment, but at the same time the catch drastically decreased, as a result of over-fishing typical for the Mediterranean.

In 2003 Croatia proclaimed a **Zone of Ecological Protection and Fisheries (ZEPF)** in order to mitigate the negative impacts on marine resources. However, in 2004, the restrictions for fishermen from EU countries have been delayed for after the signing of the partnership contract between the EU and Croatia. With such decision legal obligations of the ZEPF are applied to Croatian ships and those from non-EU countries, but not to Italian, Slovenian and other EU ships. Such implementation of PEFZ regulation is perceived as unfair among Croatian fishermen and, more importantly, as a highly ineffective one.

Biological and landscape diversity is still very high in the Croatian coastal areas. For example, the ichthyofauna of Croatian rivers is among the largest in Europe (out of the 64 fish species, 40 are Mediterranean endemic species, while 11 exist only in Croatia). This impressive biodiversity is however seriously threatened.

Aquaculture activity in Croatia has increased in recent years. Fish farming in floating cages includes mainly sea bass and sea bream, producing about 2,700 MT/year. Also the shellfish aquaculture is on the run. Together with liquid waste, solid particles consisting of uneaten chuck and fish excrement are a serious cause of pollution in both inland aquatic and marine ecosystems.

### ***Agriculture***

The surface area of arable land in Croatia has diminished drastically within the last 20 years. The re-orientation of the landowners to tourism was marked by the widespread transformation of agricultural land into summer-house settlements. However, recent trends show that olive groves, viticulture, herbs (like lavender, rosemary, pyrethrum, etc.) and other low-impact agricultural activities that the region was once famous for are regaining popularity.

Still, in some areas, such as the Neretva valley, the use of pesticides for mass agricultural production is posing a great pressure to the freshwater and marine environment.

### ***Pollution***

Coastal pine forests, characteristic for Croatia, are nowadays highly threatened by industry, urban development, transports and modern agriculture. Pollution of air, water and soil, accompanied by unfavourable climatic excesses, cause the degradation of entire forest ecological systems, known as dying woods. One of the greatest threats to the forests along the coastline are forest fires that frequently occur during dry and hot summer months.

The process of de-industrialisation of the Croatian economy is clearly visible from 1987. The positive side-effect of the de-industrialisation is the elimination of polluting technologies near the coast. The remaining industrial plants are found mostly around the cities of Rijeka and Split. The main impact of those coastal industries is wastewater discharge without prior treatment. Another impact is represented by inadequate disposal of solid waste in porous karstic terrain which could contaminate ground waters. Urban areas are the major source of the organic substances loads in the eastern part of the Adriatic Sea.

In general, the state of the Croatian coastal sea can be regarded as comparatively good. However, great problems exist in the so-called "hot spots" (areas with the concentration of

environmental problems, mainly in the vicinity of the large urban agglomerations, in the enclosed bays, near big industrial complexes and harbours, etc.). Croatian authorities have identified within the GEF project “Strategic Action Programme to Address Pollution from Land Based Activities (SAP MED)”, eight such spots: Pula, Rijeka, Bakar, Zadar, Sibenik, Kastela Bay, Ploce, and Dubrovnik.

## **2.4 Bosnia & Herzegovina**

### ***Littoralisation***

In Bosnia & Herzegovina (B&H), similarly to Slovenia, problems of coastal area have a very special importance because of the extreme narrowness of the sea access, compared to the relatively large total surface area of the country. The coastal strip of 23 km in the Neretva Canton is embedded between two parts of Croatian territory. This is the cause for the outstanding attractiveness of the Neretva area, and the land-use conflicts are inevitable. Uncontrolled construction, often a result of lacking spatial plans, is especially present in urban coastal areas, and it could become critical in areas where a hastened tourist development is expected.

### ***Tourism***

Tourist development in the coastal area requests huge changes in the area, causing and ever increasing pressure on the coast. Expansion of tourist capacities requires new construction, and remodelling of the coast is necessary to accommodate larger beaches. Along with urban sprawl which, besides the inevitable and planned expansion of towns, includes unplanned construction, uncontrolled tourist development and widening of beach areas are the main causes of coastal devastation, disturbance of its scenery, and changes of its natural features. As a consequence the scenery, biological diversity and natural balance in general are jeopardised.

### ***Pollution***

Waste waters from the land represent now the main source of pollution of the coast. On the B&H coast there is no suitable landfill for controlled disposal of solid waste or for its modern processing. Considering the problems of the coastal environment and coastal areas, the following fundamental problems have been noted:

- pollution of the sea from the land (point and disperse springs, rivers, “hot spots”);
- transboundary pollution of the sea;
- pollution of the sea from vessels;
- unsuitable waste water treatment and discharge;
- unsuitable solid waste management system;
- lack of supervision of waste discharge into the rivers, and thus into the sea;
- lack of permanent monitoring of sea quality;
- fires.

### ***Cultural landscape***

Agriculture still plays a significant social and economic role, although productivity is in general very low, and too little attention is paid to effective management of water and soil resources. In spite of migrations the rural population is still numerous, but it is mainly poor and of low educational level. More and more agricultural soil of good quality is lost to urban development. This brings a short-term profit for the sellers, but together with the dying away of agriculture, the traditional cultural landscapes of B&H are being irreversibly lost.



### ***Mariculture***

Sea production of B&H is limited by the size of the Neum Bay. At the moment there are two companies working with cage breeding of 80 t. of sea bream and sea bass, 10 t. of dentex and 20 t. of shellfish. Production of oysters is at the beginning. Mariculture development is limited by the cheap import from Italy and France.

## **2.5 Montenegro**

### ***Urbanisation***

The turbulent Montenegrin past and the clashes between three civilisations, as well as the rich natural diversity of this country have influenced the diversity in spatial development that can be seen today. The coastal area has always been the most populated part of the region. A mountain range, as a physical barrier, impedes the communication with the background and requires large investments in order to connect centres.

The main problem is the lack of space for new development. Extreme concentration in some of the zones with developments and human activities is evident. On the other hand, depopulation of the countryside has left many areas without permanent residents to carry the future development.

Today, significant parts of the coast make urban zones and suburban settlements. The intensive urbanisation process and population concentration in this zone cause numerous conflicts. On one hand there is an acknowledged need to preserve the natural beauty of this area, and on the other the pressure to privatise and develop a part of the coast.

## **Tourism**

The Kotor and Risan part of the Boka Bay is on the UNESCO list of protected world natural and cultural heritage. High-quality natural beaches, attractive scenery, mountainous virgin nature and the relatively unpolluted land and sea classify the Coastal Zone of Montenegro as one of the most attractive regions of the Mediterranean for tourists.

Not so long ago, the geo-strategic position resulted in a large number of military complexes, ports and fortifications along the coast and in its immediate hinterland. Today these have been transformed into tourist facilities and resorts. The beginning of the tourism development dates to the 1960's. The biggest infrastructure project at that time was the construction of the coastal road in 1964. Besides the increase of living standard, tourism development brought with it problems, too. Seasonal multiple increase of the number of users of the coast made it difficult to organise and maintain communal order. Traffic, together with difficult communication in the entire area was also a big problem. Pressure of tourists on beaches and organised services changed the natural environment.

There is a long and rich naval tradition, especially in Boka, with Kotor and Perast being most prominent. The existing ports, harbours, and individual small moorings are insufficient to meet the growing requirements for berthing of cruise ships and yachts, which causes conflicts with the needs of tourists for beaches. Yacht traffic is considerable in the territorial waters of Montenegro, especially in the summer months.

## **Infrastructure**

Currently, the most obvious problems of the coast of Montenegro are those related to infrastructure. Intensive individual construction was not accompanied by adequate infrastructure facilities. The road network is unsatisfactory in terms of coastal-hinterland connections, as well as within the area between cities and their immediate surroundings.



Lack of a wastewater management system and facilities for wastewater treatment is an obstacle that has to be overcome if further development of this area is desired. Through drainage pipes the wastewaters flow directly into the sea, which is a very big problem, especially in Boka.

### ***Industry***

First industrial activity was related to naval industry. In the period after the World War II intensive construction of industrial facilities started in the coastal area, mainly in Kotor and its surroundings, while in the remaining part of the coastal area only few plants for medicines and food processing were built. A milestone in ecological space reorganisation occurred in the 1980s, when the industrial complex was removed from Kotor and the protected part of Boka.

Considering the ecological sensitivity and the narrow space, which particularly refers to the Boka Bay, industrial activities created problems such as danger of pollution, cramped space and degradation of landscape. The same applies to the industrial loading ports (Bar, Risan and Zelenika), as well as warehouses zones and oil reservoirs on the coast.

## **2.6 Albania**

### ***Urbanisation***

The northern coast benefits from the main traffic axis of Albania consisting of a coastal road and railroad, which connects the northern and central regions. Road access to most of the southern coast, however, has long been underdeveloped, with narrow, winding and intermittently unpaved roads perpendicular to the shore. The national road running parallel to the coastline has recently been upgraded and new segments are being constructed.

A survey shows that about 97% of the total Albanian population lives within 100 km from the coastline. Coastal development is also characterised by the construction of secondary homes, where especially foreign investors are increasingly becoming active.



### **Agriculture**

The central and northern Albanian coastal regions remain the country's most important agricultural areas. Today, about 58 per cent of the population lives on the coast. Before 1990, coastal agriculture was a big issue, with large wetlands being drained to provide land for agriculture. This policy had several negative consequences. First, valuable wetlands disappeared reducing the biodiversity potential of the coastal area. Second, the reclaimed agricultural land was not as productive as expected because of the high salinity of the soil. This sector thus soon ran into serious economic difficulties, creating a chain of social and environmental problems. For example, through insufficient channel maintenance the pesticides accumulate in the lagoon, thus jeopardising fish breeding ecosystems.

### **Biodiversity loss**

The unique Albanian wetland landscape with numerous lagoons and versatile dune structures stretches between Shkodra and the Vlora resort. However, these sensible natural areas are highly threatened. The factors influencing loss of biodiversity include the draining of wetlands, illegal hunting and fishing in the lagoons, over-use of water resources, aggregate extraction, demolition and illegal construction activities, degradation of areas of cultural and archaeological heritage.

Water pollution is still a major problem as wastewater treatment is not widespread in Albania. Four major coastal cities are connected to a sewerage network, but the wastewater is discharged untreated directly into the sea.

### **Fishery**

Fisheries, particularly commercial fisheries, are underdeveloped. Officially, this sector employs about 3000 fishermen and other workers. The fleet is old fashioned, and the ships are usually second-hand and poorly maintained. Many fishermen work illegally, but this is tolerated by the local authorities, who see this as a way to relieve poverty and social problems among the coastal communities. According to FAO, the annual catch has dropped significantly in the past decade. However, unofficial data show that the real catch is double the one reported; about 40% of fish is exported, mainly to Greece and Italy. Domestic demand is increasing, especially for cheaper fish, whereas high-quality fish is exported. As far as aquaculture is concerned, the number of enterprises has dropped by half from 1990. The Government is trying to implement environmental measures in aquaculture, so as to reduce potential pollution from fish production. Among the main problems in coastal fisheries and aquaculture are inefficient enforcement of the legislation abolishing dynamite fishing, illegal fishing leading, and insufficient level of service for boats.

### **Erosion**

Coastal erosion is a great problem in the northern and central coastal regions of Albania, and particularly north of the city of Durrës. Sediment discharges from rivers are relatively large, which explains the very dynamic nature of the deltaic development of the coast, resulting in the rapid development of new coastal features, such as spits and lagoons.

## 2.7 Summary: Major Coastal Issues in the Adriatic Sea Region

### *Major issues in the terrestrial zones of Adriatic*

While in the past, degradation of the coast was caused by land reclamation, agriculture, mining and industrial pollution, the present threats come from urbanisation, intensive resource exploitation and tourism. The problem related to the terrestrial part of the coast common to all Adriatic countries is the widespread urbanisation of the coastal belt – the so-called **littoralisation**. Coastal urban development is driven by internal migration, which drives many people from the north of the country to the coastal regions, especially the narrow coastal strip. This trend, long familiar to Italy, is now particularly on the run in Slovenia (triggered by the recent EU accession), the very attractive Croatia and Montenegro, but also starting in B&H and Albania.

**Table 1: Major Issues in the Terrestrial Zones of Adriatic, the Pressure They Exert and the Urgency They Carry**

	Emilia-Romagna	Slovenia	Croatia	BiH	Montenegro	Albania
Urbanisation/Littoralisation	+++	+++	+++	+++	+++	+
Tourism	+++	++	+++	++	++	
Infrastructure	++	++	+	++	+++	++
Fresh Water Management	++	++	+	+	+	+
Agriculture	++		+	++	+	++
Nature Protection	+++	++	+++	+	+	+++
Landscape	++	++	+++	+++	+++	+
Erosion	++					+++

+ = Low, ++ = Medium, +++ = High

Despite the general concern for the environment in the Mediterranean countries and the exposure to EU approaches to sustainable development, short-term development opportunities attract more attention than the longer-term consequences for the environment. Local landowners, attracted by high land prices, convert their land from low intensity use to land for building. Local governments usually see this as an important source for increasing their tax base through land and property tax and so support negative developments.

This extreme form of **tourism** development not only puts severe burdens on the existing infrastructure, especially roads and water and sewerage networks, but more significantly deteriorates the landscape and natural qualities of the coastal regions. Paradoxically, the unique potential of these areas for individual and more sustainable tourism is thus being drastically reduced.

An important and growing branch of tourism in the Adriatic is the **nautical tourism**. In some areas, e.g. in Montenegro, the demand for yacht mooring is much bigger than supply. On the other hand, there is a growing demand for building new public bathing spots for tourists. Overall, the private versus public space arrangement on the limited ground is one of the major problems on the Adriatic coast.

**Infrastructure** related problems in the Adriatic region range from anticipated but problematic port expansion (Triest in Italy, Koper in Slovenia) to underdevelopment of public infrastructure esp. in Bosnia, Montenegro and Albania, aggravated by the labile political and economic situation of the transition period in these countries.

The agricultural sector has lost its importance over the past decades – only in Italy and Albania the conventional agricultural uses still prevail. Other countries like Slovenia, large parts of Croatia, Montenegro and B&H have abandoned the farming ground in favour of residential housing. A new trend, esp. in Croatia and Italy, is the more **sustainable production** of wine, olives, herbs and other gourmet products traditional for this region.

**Nature and landscape protection** is another big issue common to all Adriatic countries. Particularly Croatia and Albania, owing to their long and still to a large extent unspoilt coastlines, are faced with conflicts between biodiversity preservation and further economic development. In Albania the protection of wetlands and coastal erosion are recognised as the most significant problems, in Croatia the management of karst habitats and the related fresh water problems. Montenegro is in turn very much concerned about the picturesque landscape qualities of the UNESCO world heritage listed Boka Kotorska.

The last but not least important issue in the terrestrial part of the Adriatic is the **seismic movement** – earthquakes happen in this area, although not frequently, but sometimes of a disastrous force, like the earthquake on the Montenegrin coast of 1979.

### ***Major issues in the aquatic zones of Adriatic***

**Maritime traffic** in the Adriatic Sea, both private and commercial, is becoming increasingly dense. This is due to the location of important industrial centres, especially along the western Adriatic coast, but also due to ports serving for transit to other countries of Central Europe, such as particularly in the north of the Adriatic coast (the ports of the Trieste, Venice, Koper, Rijeka basin). Moreover, new transit ports are expected to gain significance in the south of the eastern Adriatic coast, such as Ploce in Croatia, Bar in Montenegro, and Vlorë in Albania from where a major new transportation route for Caspian oil export is expected. Trends in the development of international shipping activities will lead to an increased density of traffic (also due to projects such as “Motorways on the Sea”), and the volume of transport of oil and other harmful substances, including liquefied natural gas (LNG). Maritime transport, especially the petroleum transport, is an additional source of marine pollution due to possible accidents and improper disposal of ballast and bilge waters and solid wastes. A spill could have disastrous effects on the vulnerable nature and natural resources of the Adriatic Sea, as well as on its important uses such as for tourism and local fisheries. This is why the consideration of navigable waterways in the Adriatic and their control is becoming very important.

Another great risk to water quality is represented by the lacking or insufficient **waste water treatment** facilities in all Adriatic countries. On the western coast the biggest pollution source is the Po River. As the Adriatic Sea is a long and narrow basin with a small exchange with outside Mediterranean, the low quality of surface and underground waters affects directly the marine water quality, with adverse effects on both water based tourism and marine ecosystems.

**Fishery** has traditionally been an important sector in the Adriatic countries. However, along with the shrinking of fishing resources as a result of over-fishing and unfavourable ecological conditions, its share in the national economies is constantly dropping. The new trend can be observed towards aquaculture, especially in Croatia and Slovenia, which however is not entirely free of environmental and spatial constrains.

**Marine Protection Areas** are an emerging field of marine space use in the Adriatic. Around 50 MPA's are designated at the moment in Italian, Slovenian and Croatian waters. Some of them underlay the regulatory framework of NATURA 2000 EU directive, some are national parks on water according to national law (e.g. the Croatian Mali Losnij dolphin reserve)

**Table 2: Major Issues in the Aquatic Zones of Adriatic, the Pressure They Exert and the Urgency They Carry**

	Emilia-Romagna	Slovenia	Croatia	BiH	Montenegro	Albania
Nautical Tourism	+	+	++		+++	
Maritime Transport	+++	+++	+		+	
Fishery	++	+	++	+		++
Mariculture	++	++	++	+	+	
Water Quality	+++	+	+	+++	+	+++
Energy Generation	+++	+++	+++			
Military Uses						

+ = Low, ++ = Medium, +++ = High

Summing up, there are currently two issues that require urgent measures in terms of maritime spatial planning in the Adriatic. The first of them is the **maritime transportation** and the associated collision risk. The second triggering issue regards the **gas terminal projects in the Gulf of Triest**. It is anticipated that further energy generation uses (wind and mineral resources) and conflicts will emerge in the near future.

### 3. Coastal Zones: Definitions, Terms and Concepts in the Adriatic Countries

#### *Emilia-Romagna*

Italy does not have a comprehensive definition of the coast as a territorial body. This is due to the different interpretations that can be constructed for coast, coastal influence and coastal system (together with its land- and seaward systems connections), differing for different types of land and sea uses and associated views. Competences in Italy are highly fragmented, emphasising the role of local authorities in dealing with spatial planning and coastal zone management. There is no national approach to ICZM.

In relation to the coastal land areas, the Law n. 431 of 1985 identified the 300 m wide coastal belt as natural heritage, including the raised territory. Building is allowed in urban areas according to the current planning tools and prior specific permit granted by Superintendence.

At a regional level, coastal plans can and have been developed by coastal regions.

On the landward side, coasts are considered inextricably linked to adjoining river catchment areas and so-called physical units. The extent of this physical unit is still to be determined by the regions.

On the marine side, a system exists for establishing marine protected zones, with some associated zoning regime detailing the level of use allowed.

#### *Slovenia*

Compared to other Adriatic countries the Slovenian coastline is very small. There is **no formal definition of the coastal zone**, but in practice, it is the region of South Primorska – an extended Obalno-Kraška statistical region – which is considered the coastal zone. For this Regional Development Programmes have been prepared.

Waterside land is defined for the purpose of spatial planning at a more detailed scale. This is the land that directly borders the seashore, extending up to 25 m inland. Restrictions apply in terms of how marine waterside land can be used, e.g. to restrict encroachment. Owners or other proprietors of waterside land must permit free passage across their land to a water or marine asset. The use of waterside land is directly connected with the concept of its public use, but the erection of facilities for bathing, diving, skating, navigation is permitted only if such use does not cause any damage to the owner of the waterside land. If public use of a water or marine asset cannot be otherwise ensured, the government may demand the revocation or restriction of a property right on waterside land.

Spatial planning of coastal zones takes place at the municipal level within three coastal municipalities. These prepare municipal master plans and detailed local master plans within the objectives and directives provided by the national strategic master plan.

Maritime spatial planning is not specifically regulated in Slovenia. The Spatial Planning Act does not explicitly mention maritime spatial planning, but allows for the system to be applied to the sea. This means that the State has competence over maritime spatial planning. Practical implementation, however, has often taken place at a municipal level, with municipal plans including the adjoining sea areas.

A recent development, carried out as part of MAP CAMP, is the concept of spatial development in South Primorska, a basic spatial strategic document of the area which will direct future (spatial)

development and thus also the sustainable development of the region. Special attention was paid to the spatial arrangements of the coastal strip, the management of protected areas and the protection of water resources. Moreover, modern methodologies and tools for spatial planning (including strategic environmental impact assessment, scenario planning and carrying capacity assessment for tourism development) were presented within the project. Adequate emphasis was also placed on public participation and promotion of the project to the public.

On the basis of the results of individual CAMP projects and the Systemic and Prospective Sustainability Analysis, a programme of coastal area management was drawn up. Sustainable spatial development is one of the selected priority areas, designed to support regional competitiveness, improved quality of life and sustainable coastal area development.

### **Croatia**

As in other countries, the coastal waters of Croatia comprise “internal coastal waters” (defined as the area of sea that extends between the coast and the line which connects its outlying islands) and “territorial waters” (12 nm).

Protected Coastal Areas are a spatial planning category and supported by a Regulation on Development and Protection of the Coastal Area. In this regulation, the coastal zone (termed the **coastal belt**) is defined as an area extending **1 km landwards and 300 m seawards**. The main purpose of this regulation is to control and limit construction on the coast. Within the coastal belt, Croatia has set aside a **6 metre wide strip** which is considered **public marine domain**.

There is no specific requirement in the planning law to carry out coastal zone planning and management, although plans at all levels should take into account coastal protection.

The amendment of the Nature Protection Act of 2005 made possible the designation of marine protected areas, effectively turning this Act into an instrument of marine spatial planning. So far however, less than 1% of the Croatian marine area has been protected. Other sectors have also delineated priority areas or particularly suitable areas for marine-based activities, such as fishery areas or zones suitable for mariculture.

### **Bosnia & Herzegovina**

The jagged coastal belt of B&H between Neum and Klek is only 24 km long. The marine area of B&H is surrounded by the sea and islands of the Republic of Croatia.

Bosnia and Herzegovina has no definition of the coastal zone, neither on land nor on the sea. For the terrestrial part, however, it is quite clear that the coastal zone should naturally comprise the only B&H coastal municipality, Neum.

### **Montenegro**

In Montenegro the coastal region understands the morphological unit which ranges from the sea to the peaks of the coastal mountain chains. Although the coastal region does not constitute an administrative unit nor is it covered in spatial plans as a region, it does comprise a special planning and functional development unit that in administrative terms covers six coastal municipalities. The National ICZM Strategy, which is in the process of being adopted, will for the first time formally **define the coastal area**. This is likely to cover the territory of six municipalities except for the part of the Bar municipality which is located in the hinterland of the coastal rocky chain and does not belong to the coast. The seaward border of the coastal zone is defined as the **limit of the territorial waters**.

In the Montenegrin land policy there is no specified difference between coastal area and other parts of the state.

A particular zone within the Montenegrin coast has traditionally been the **marine public domain**. This comprises the sea coast, ports, moles, shipways, piers, shoals, bathing spots, cliffs, reefs, springs and spas on the coast, deltas of rivers that flow into the sea, channels connected with the sea, sea waters and territorial waters, living and non-living world in them and in the surrounding continental zone, as well as the part of land that by its nature serves the purpose of using the sea for maritime transport and sea fishery and for other purposes in relation to the sea. On land the border of the marine domain is defined as at least 6 metres wide, but in some areas the landward boundary may be a few km from the shore.

Interventions in the water body and the coastal area are not covered by spatial plans, with the exception of significant ports and harbours as major infrastructure. On the coastal strip and in the sea, management is entirely sectoral. Although ICZM is proposed as a major framework for sustainable coastal and marine development, the Protocol for ICZM, which is currently being drafted, does not make specific provisions for MSP. Recently however, the Parliament has adopted a spatial plan for the Marine Domain, which is considered as a basis for drafting the national ICZM strategy in Montenegro.

### **Albania**

Albania does not have a definition of the coastal zone in spatial planning terms. The spatial planning system comprises both national and local levels, with intricate hierarchies of development control. Coastal as well as maritime uses are regulated on a sectoral basis without a comprehensive framework for planning within the coastal zone. The system however does provide a legal basis for local authorities to establish ICZM or RBM plans. At a local level, the aim is to ensure that each local authority prepares a basic land-use plan for their areas by 2010. At a trans-municipal level, a second tier of land-use planning will be added, which will include the preparation of ICZM plans for the southern and northern coastal areas of Albania.

The National Biodiversity Strategy and Action Plan proposes a network of 25 coastal and marine protected areas, which will have some spatial relevance.

The main issue is to give equal weight to all land uses and development interests, and to make sure that physical master plans are actually developed so they can serve as a basis for development decisions and spatial planning.

**Table 3: Coastal Zone Definitions in the Adriatic Region**

Definition of Coastal Zone	Emilia-Romagna	Slovenia	Croatia	BiH	Montenegro	Albania
On-shore	300 m	The region South Primorska	1000 m inland (of which 6 m is considered public domain)	No definition, but practically the municipality of Neum	6 m	No definition
Off-shore	3 km Italian legislation 10 km Regional practice	No definition	300 m is proposed	No definition	Entire 12 nmz	No definition
Remarks	Public domain designated for public use can be given in concession	Definition based on administrative units, only informal	Problems defining the EEZ border to Slovenia		Public domain, rules strictly executed by the JP "Morsko Dobro"	

## 4. Legal Framework for ICZM and MSP

### 4.1 Emilia-Romagna

#### 4.1.1 On-shore planning in Emilia-Romagna

Since 1972 Italy has been divided into regions with administrative competences on, among others, urban planning, road network, aqueducts and public works of regional interest. Nevertheless, urban planning and regulations are still determined at the national level through the *Urban Planning Law* No. 1150/1942, although the regions were given the necessary competences to legislate in this matter.

According to the Emilia Romagna Regional Law No. 20/ 2000 there are three planning levels:

- The regional level represented by the Regional Territorial Plan (It. PTR);
- The provincial level represented by the Provincial Territorial Co-ordination Plan (It. PTCP);
- The communal level represented by Communal Urban Planning (divided in three tools: Communal Structural Plan PSC, Urban Building Regulation RUE, Communal Operational Plan POC, Urban Implementing Plan PUA).

At the European level, the 5<sup>th</sup> Environmental Action Plan was introduced in the social-economic development processes to foster integration of environmental protection, similar to the integration in the economic and social spheres. Though the integration of the environmental issues in planning and in programmes was still premature at the national level, the principles introduced at the European level concerning environmental themes drew greater attention to environmental problems, preparing the ground for the creation of new territorial management instruments.



The territorial management in Italy does not only have to comply with the upper-level framework policies and environmental sustainability assessment called VALSAT, but also be in compliance with the higher-level plans and developed in a negotiative, participative way.

#### 4.1.2 Off-shore management in Emilia-Romagna

Since the 1970's, the density of population and human activities on the Italian coast has drawn general attention to the need to arrange suitable state legislation instruments on the subject, as there is profound awareness of the conflicts existing between physical growth and development.

In 1982 the *Law on General Rules for Sea Protection* was intended to be a significant turning point in the management of environmental marine and coastal policies, and foresaw the creation of a *National Plan for the Sea and Marine Coasts Protection*.

In the meantime, however, the 1998 changes in the Italian legislative framework have introduced a **shift of the main coastal competences from the state to the region** (province), identifying the region as the optimum level for the implementation of planning policies and integrated coastal management. This made it possible for the Italian coastal regions to develop

their own **Regional Coastal Plans** without waiting for the analogous national-level regulation. Regions of Liguria, Marche, Tuscany and Emilia-Romagna have seized this opportunity.

The **Emilia-Romagna Coastal Plan** (2000) assesses the present coastal conditions in order to propose protection and development measures to enhance the coastal landscape, natural and environmental value, **both on-shore and off-shore**. All this has been realised on the basis of a strong awareness that the overall coastal system governance required a methodological approach, instead of the spontaneous measures applied earlier. In fact, the Coastal Plan involves several sectors: coastal protection, beach nourishment, marinas, coastal traffic issues, recovery and re-organisation of urbanised tracts and development of public and tourist facilities in the coastal area.

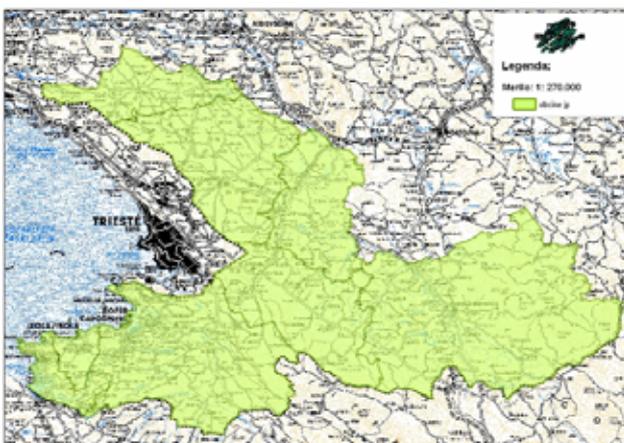
Currently, there is no maritime spatial planning in Italy. The main off-shore management instrument are the **protected marine areas**. The *Law on Marine Protected Areas* of 1991 identifies and defines the activities in marine protected areas, i.e. banning those that could jeopardise the protection of the environment and its specific features on which the protection measures are based. Protected sea area management is entrusted to public bodies, scientific institutions or recognised environmental associations, also co-operating with each other. At present, most of the marine protected areas are directly managed by the communes in charge of the territories where the areas are.

In relation to the coastal land areas, in 1985 a **300 m wide coastal strip** has been legally defined as natural heritage. In this strip, construction is only allowed upon obtaining a special permit from the Superintendence. However, beyond this identification of the coastal zone, there are **no further rules** or active protection measures that can hinder or limit the increasing demand for transformation of the coastal land.

## 4.2 Slovenia

### 4.2.1 On-shore planning in Slovenia

After gaining independence in 1991, Slovenia started to redesign the entire legal system. The nineties were the years of *ad hoc* adjustments of the old system and since 2000 there have been two new *Spatial Planning Acts*, which, however, have not yet become fully operational in practice, as a series of implementing regulations still have to be prepared.



The new spatial planning system had to adapt the administrative solutions and approaches to a parliamentary democracy, market economy, new meaning of private property rights, the establishment of the local government, and incorporation into the European integration process. **Sustainable development, polycentric urban and regional development** and integration into **European networks** are three most explicit aims in the new spatial planning approach in Slovenia.

The competences in the area of spatial planning in the Republic of Slovenia are divided between the State and the municipalities. **Regions have not yet been established** in Slovenia. The *Act on Regions* is under preparation, which will, *inter alia*, delegate to regions some

competences in spatial planning. The new *Spatial Planning Act* however, **does not encourage an integrated approach to regional spatial planning** but only inter-municipal co-operation in the field of spatial planning with an aim to obtain European funds, especially in the field of environmental infrastructure.

The inter-municipal spatial planning documents (in future: Regional Master Plans) are meant to facilitate the implementation of the regional development programme. Although, in accordance with the *Spatial Planning Act* the proposer of the regional development programme is a common municipal body (composed of the mayors of the participating municipalities), it is doubtful whether it is really a “**regional**” plan or only a joint project of the participating municipalities.

Spatial planning of coastal zones is therefore focused at the **municipal level**. There are three coastal municipalities: Koper, Izola and Piran. They prepare their municipal master plans (strategic and implementing parts) and detailed local master plans according to the objectives and directives of the national strategic master plan.

The **coastal zone has not been defined** in Slovenia. In practice, the approach has been established that the **region of South Primorska is considered the coastal zone**, for which Regional Development Programmes have been prepared, the current one in the framework of the MAP CAMP Slovenia Project.

There is no regulation in Slovenia on the basis of which a special system of integrated coastal zone management could be established. The so far best interface to ICZM is the Slovenian **Water Act** based on the European Union **Water Framework Directive**, which envisages the preparation of management plans and detailed water use plans (for individual catchment areas, river basins of their parts).

The **CAMP Slovenia** is a project implemented jointly by the Mediterranean Action Plan (MAP), the Republic of Slovenia and the Municipalities of South Primorska. The project is based on the MAP priorities (including the Mediterranean Strategy for Sustainable Development adopted at Portorož, in November 2005, at the 14<sup>th</sup> Meeting of the Contracting Parties to the Barcelona Convention). It observes the principles and provisions of the new MAP ICAM Protocol, the Sixth Environment Action Programme of the European Community and its issue-related strategies, as well as the adopted national strategic documents (especially the Spatial Development Strategy of Slovenia and the National Environmental Action Programme 2005-2012).

During the CAMP Slovenia project, the Regional Development Programme for the period 2007-2013 has been drawn up. A close integration was established between the two processes since both projects contents are complementary: the CAMP Slovenia upgrades and defines in greater detail a part of the Regional Development Programme referring to the environment and spatial development. Thus, it exploits all institutional infrastructure and implementation (particularly financial) instruments, which strengthens its implementation capacity.

Two types of projects were carried out in the framework of the CAMP Slovenia: individual projects dealing with the selected issues, and horizontal projects with the objective to connect all activities into an **integrated long-term process**.

The CAMP Slovenia is above all focused on spatial planning and the issues related to spatial planning. The main programme within the framework of the CAMP Slovenia project is the **Concept of Spatial Development of South Primorska**, a basic spatial strategic document of the area which will direct the future (spatial) development and thus also the sustainable development of the region. A special attention was given to the spatial arrangements of the coastal strip, the management of protected areas and the protection of water resources. Moreover, modern methodologies and tools for spatial planning (including strategic environmental impact assessment, scenario planning and carrying capacity assessment for tourism development) were presented within the project. An adequate emphasis was placed on public participation and promotion of the project to the general public.

#### 4.2.2 Off-shore management in Slovenia

Maritime spatial planning is **not specifically regulated** in Slovenia. The Spatial Planning Act does not mention explicitly the issue of maritime spatial planning, but the statutory spatial planning may be applied also to the sea. According to the *Decree on the types of spatial planning of national significance* of 2005, spatial arrangements in offshore areas are important for the spatial development of the Republic of Slovenia. Thus, it provides that the **state** has the competence over the planning in off-shore areas and not the municipalities. In the past it was very different: in their spatial plans, the municipalities covered also the sea. E.g. in the 1970s such documents defined also the areas for the development of mariculture, the municipalities were preparing the detailed plans for marinas, etc.

Some other sea uses (nature and cultural heritage protection areas, fishing reserves, navigation corridors, etc.) were determined on the basis of sectoral regulations outside the spatial planning framework. The key laws regulating the particular aspects of coastal zone management and the key responsible institutions are as follows:

- **2007 Spatial Planning Act** – responsible: Ministry of Environment and Spatial Planning.
- **2002 Water Act** – governs the management of marine, inland and ground waters, and the management of water and waterside land. Management of waters and waterside land comprises the protection of waters, the regulation of waters, and decision-making on the use of waters. This Act also governs public assets and public services in the area of waters, water facilities and installations, and other water-related issues. Responsible: Ministry of the Environment and Spatial Planning, Environment Directorate, Inspectorate for the Environment and Spatial Planning, Environmental Agency of the Republic of Slovenia and its Section for the Adriatic Catchment Area in Koper.
- **2004 Marine Code** – regulates the sovereignty, jurisdiction and control of the Republic of Slovenia over the sea, navigational safety in territorial waters and inland marine waters, protection of the sea against pollution from vessels and legal regime of ports. It regulates obligational relations regarding vessels, vessel registration, limitation of shipowner liability, average adjustment, enforcement and marine insurance and conflict of laws rules. Responsible: Ministry of Transport, Transport Directorate, Maritime Directorate, Slovenian Maritime Administration.
- **2007 Nature Conservation Act** – responsible: Ministry of Environment and Spatial Planning.
- **2004 Environmental Protection Act** – responsible: Ministry of Environment and Spatial Planning.

The area of the Slovenian Adriatic is **very small**, covering only 180 km<sup>2</sup> with the coastline length of 46 km. This limited space makes the competition of different uses even more acute.

An activity that could trigger initiatives for a systematic harmonisation of different uses is energy generation from wind and mineral resources. The need for maritime planning was expressed most explicitly in the case of **gas terminal projects in the Gulf of Triest**. The project started without the preparation of variant solutions or the strategic environmental impact assessment. Slovenians opposed the first Italian ideas of building the terminal, but soon afterwards they proposed their own projects without international consultation. This resulted in a wave of indignation and opposition to the project.

## 4.3 Croatia

### 4.3.1 On-shore planning in Croatia

The most important laws for the protection of the coastal land areas are the *Spatial Planning Law* and the *Nature Protection Law*. Neither of them, however, defines specifically coastal zone planning and management, although it is implied that coastal protection considerations should be integrated into regional, municipal and local planning.

The 1994 *Spatial Planning Law* prescribed the preparation of a specific coastal regulation. In September 2004, ten years later, the **Governmental Regulation on Development and Protection of Coastal Protected Area** has been adopted. The key provisions of the *Regulation* include:

- **Protected coastal area (PCA)** instrument has been proclaimed including the coastal belt of 1000 meters on mainland and all islands, and a 300 m marine belt (*Spatial Planning Law* 2004).
- **Restrictive conditions** for construction and land extension within the PCA in new local spatial plans.
- Any construction of residential or tourist buildings within PCA can take place only upon **adoption of regulatory development plan** approved by the County Planning Institute, the State Development Control Office and the Ministry. No construction can take place before the land for public spaces (streets, public facilities) has been allocated and equipped with basic infrastructure.
- New residential and tourist developments outside settlements are allowed outside a 70m coastal belt. Within this **70 m belt** allowed interventions include: open public spaces such as recreation areas, playgrounds, seafront promenades and beaches, tourist catering and entertainment facilities, and coastal infrastructure (ports, dry marinas and other uses which by their very nature require coastal location).
- **Tourism development** planning is no longer local-level responsibility but is moved up to the **county plans**. All seven coastal county spatial plans are presently being amended by designating tourist development areas.
- **Illegal building** has been proclaimed as criminal act.

Unfortunately, some of these criteria are not clear enough and their implementation so far has been accompanied by numerous difficulties.

Despite numerous strategic documents, the Croatian islands still lack concrete measures to improve the state and activities that would not focus on short-term economic profits at the expense of a long-term conservation of insular environment. The only act related exclusively to the islands - Island Development Act (1999) cannot be enforced due to the shortage of funds.



### 4.3.2 Off-shore management in Croatia

The Croatian coast is dealt with by a **large number of governmental actors**. The principal role is played by 7-8 ministries, each convinced of its exclusive responsibility for coastal development. Lack of co-ordination and communication among them, which is common even within departments of the same ministry, is a huge problem.

However, the early activities in managing the Croatian coastal area were relatively encouraging. In the 1970's the three Adriatic Physical Plans (Adriatic I, II and III) provided good and concise recommendations for physical and environmental management (especially Adriatic III). On this basis the **Office for the Sea and Coasts** of the Ministry of Environmental Protection, Physical Planning and Construction (MEPPPC) was established as one of the first institutional solutions of the sort in the Mediterranean. Unfortunately, instead of being fully utilised as the national leader for coastal management, its organisational/professional status has never risen above playing just a minor role in Croatian coastal area management. However, although the personnel has been reduced (currently 3 persons), the respective tasks have remained practically unchanged.

The Office is responsible for the following:

- monitoring of the sea water quality;
- proposing measures to improve the state of coastal areas and coastal waters;
- preparation of assessments and programmes to eliminate the effects of the marine and coastal pollution; and
- participation in the implementation of the MAP programme in Croatia.

The Office is currently positioned at the lowest level in the ministerial hierarchy, and that certainly defines the institutional powers that are allocated to it. It has no administrative function and has no power to intervene in the case of serious environmental disruption. Its role could be considered as a predominantly advisory one.

Apart from the Office for Sea and Coast, an important coastal player in Croatia is PAP/RAC, Mediterranean centre of expertise, in Split.

As already mentioned, the legal and regulatory framework for the Croatian coastal area is scattered across a number of different regulatory systems and regimes. The most characteristic feature is the fairly clear **split in powers regarding management of land and sea**, with the Ministry of Environmental Protection, Physical Planning and Construction plying the leading role.

In Croatia, there is **no maritime spatial planning** *per se*. Instead, maritime activities are coordinated by different ministries and institutions and regulated by different legislative regulations. The *Maritime Code* of 2004 is the key document related to maritime affairs - mainly transports. Another important regulation is the *Shoreline and Marine Harbours Law* of 2003 that defines shoreline zone and marine harbours, their management and conditions for issuing concessions. Marine Protected Areas (MPAs) are regulated by the *Nature Protection Law* of 2005, and fishery by the *Law on Marine Fishery* of 1994. In addition, there are a number of documents and strategies that define maritime transport, fishery and tourism. The most important one is the *Strategy of Croatian Tourism Development 2010* (2003). A strategy for nautical tourism is currently under preparation, but it is written again in a strictly sectoral manner without taking into account other uses.

## 4.4 Bosnia & Herzegovina

### 4.4.1 On-shore planning in Bosnia & Herzegovina

Development of spatial planning in Bosnia and Herzegovina started after the World War II together with the emerging of the Yugoslav Federation. At that time, spatial plans were first adopted for larger towns (Rakovica, Hrasnica, Novo Sarajevo, etc.), and places important for exploitation of mineral and energy resources. Certain aspects of spatial planning were also

considered in the preparation of plans of centralised economic and social development. Particular attention was paid to regional economic development, but in the first place, to the functions of the administrative government.

Between 1967 and 1981, the Adriatic Physical Plans (**Adriatic I, II and III**) for the territory of B&H were developed in co-operation with the United Nations. At that time began also the preparations for a spatial planning law in B&H. Regulation on social planning was adopted in 1978, so the spatial planning law, already half prepared, had to be formally adjusted to the new concept of area planning as an integral part of social planning. The other republics of Yugoslavia found themselves in a very similar situation regarding spatial planning.



The B&H first spatial planning law was adopted in 1981, covering the entire area of B&H. Goals and strategic directions contained in it were largely in harmony with the modern international declarations. After the adoption of this spatial planning act, spatial planning for towns, urban planning for parts of towns, and planning of special purpose (etc. national parks) areas began. However, at that time there was rarely any planning for wider areas or regions, not to mention the coastal areas.

Today, in spite of the long and significant spatial planning tradition in B&H, the system of preparation, adoption and implementation shows numerous defects. As results of these defects, we have negative trends in the management of areas that are manifested through frequent changes of the purpose of areas, unplanned or illegal construction, and uncontrolled urbanisation. Especially in the big urban centres and in locations attractive for tourism and recreation the illegal construction was immense during the unstable post-war period.

Problems that are particularly pronounced in the planning itself (favouring the development of negative trends) are: a part of planning documentation has expired, insufficient covering of areas by urban plans (lack of data at the local level needed for the preparation of area planning documentation), and some defects in applying the planning system (no respect for plans). There are also significant deficiencies regarding the land-register system and natural protection regulatory frame.

These problems were the reason for the adoption of a new spatial planning regulation for the Federation of B&H (Official Gazette FB&H, 2/06), which should insure a better functioning of the system including public participation in preparation, adoption, and implementation of decisions. It also expresses a strong demand for impact assessment and for strategic impact assessment (EIA and SEA).

Besides the new spatial planning regulation there is a need for a National Strategy to ensure complementary and compatible decisions of the spatial planning law and other laws. Priorities of the National Strategy in the field of spatial planning are:

- to make a new and arrange the existing spatial planning at every level;
- to ensure continuation of spatial planning documentation; and
- to protect natural and cultural scenery.

#### 4.4.2 Off-shore planning in Bosnia & Herzegovina

There is no co-ordinated activity whatsoever on the waters of the Neum Bay which belongs to the Neretva Canton of Bosnia & Herzegovina. The Bosnian maritime activities are, anyway, very limited because of the Croatian peninsula of Peljesac which does not permit an open sea access. An additional acute problem is the lack of marine data and data on maritime uses.

### 4.5 Montenegro

#### 4.5.1 On-shore planning in Montenegro

Until the early 1990's, Montenegro was part of the socialist Yugoslav Federation, along with Croatia, Slovenia and Bosnia & Herzegovina. Although the centralised planning system is one of the basic characteristics of socialism, the specific feature of the Yugoslav socialism was **self-governance**. Self-governance granted maximum involvement of planning subjects in the process of decision-making, and thus, at least formally, a **maximum of public involvement** was ensured in adopting plans. Since 1974 local communities were authorised to make decisions on all development relevant issues, enacting plans for socio-economic development and physical plans based on them. Physical plans were divided into development and regulatory plans.



Plan adoption was a responsibility of legislative authorities (Parliament) so the **plans had the power of law**. Development plans made the basis for physical development policy management, and the regulatory ones for carrying out the administrative procedure.

In 1992 the **shift from socialism to capitalism** was marked by the abolition of the *Social Planning Act* and the gradual

deconstruction of the planning system: both socio-economic and physical. In new laws, the methodological regulations and guidelines (e.g. development goals) are left open, and the legally binding character of spatial plans has been replaced with vague declarations.

On the other hand, the widespread economic crisis and the war in the region derogated planning activities. The administrative chaos, which has not quite finished yet, as Montenegro gained independence from Serbia only a year ago, has negative side effects in numerous unplanned and illegal spatial interventions.

#### Montenegrin National ICZM Strategy

This GTZ founded project was initiated in 2005. The National Strategy supports the national and local authorities in their efforts to reach the level of sustainable management of the coastal zone of Montenegro. It was based on international recommendations, on the principles of the Mediterranean Strategy for Sustainable Development, and on the relevant European Commission documents, as well as on the guidelines and priority tasks from the National Strategy for Sustainable Development. In addition, the Strategy is based on official plan directions, sector strategies and declared policies with the aim of ensuring alignment in the implementation of such documents.

The physical planning and development system of Montenegro is regulated by the *Physical Planning and Development Act* of 2005. According to it, planning documents are divided into state and local planning documents. The state planning documents are as follows:

- spatial plan of the Republic;
- spatial plan of a special purpose area;
- detailed spatial plan; and
- study of a location.

There is no regional administration level in Montenegro.

The Montenegrin land policy does not formally distinguish the coastal area from the other parts of the state. However, the currently adopted National ICZM Strategy will, for the first time, formally **define the coastal area**. It will cover the territory of six municipalities except for the part of the Bar municipality which is located in the hinterland of the coastal mountain chain and does not belong to the coast. The ICZM Strategy will create a binding legal framework for all stakeholders and co-ordinate all coastal activities.

A particular zone within the Montenegrin coast has traditionally been **maritime public domain** for general and special public purposes. According to the *Law on Maritime Domain* of 1992, the **Public Enterprise for Coastal Zone Management (JP “Morsko Dobro”)** is the owner of this space, while the executive function in terms of adopting the plans, issuing licences and approvals, inspection, etc. is under the competencies of local and state bodies. The income generated from renting the public domain, JP “Morsko Dobro” invests into protection, maintenance, construction and development of the coast.

One of the main activities of “Morsko Dobro” is the **management of beaches**. Before the 1992 *Law on Maritime Domain*, the beaches were considered to be public spaces for general use but nobody had a clear obligation to maintain them. In 1992, a new active approach to the beach management was adopted: beach areas are rented according to specific agreements and contracts, and the rent funds are directly used for their maintenance. Free access of citizens and tourists to the state-owned bathing areas is guaranteed by law.

#### **4.5.2 Off-shore management in Montenegro**

Together with the narrow coastal strip of six meters, the Montenegrin 12 nm sea area is managed by the above-mentioned Public Enterprise for Coastal Zone Management.

An interesting feature of the Montenegrin planning system is the obligation of making and adopting spatial plans for the maritime public domain. However, these plans have until now been made only for ports and harbours, and had thus **no co-ordinating influence** on the decision-making in broader off-shore areas. The PlanCoast pilot project maritime spatial plan for Boka Kotorska will be the first of this kind of comprehensive undertaking in Montenegro.

Until now, the maritime activities have been subject to various separate sector programmes and decrees, such as:

- Navigation routes and the regime of coastal navigation are under the competencies of port authorities and the Ministry of Maritime Affairs and Transportation, and is regulated by the *Law on Coastal Navigation*.
- Fishery is defined within the *Law on Marine Fishery*.
- Mariculture is under the competencies of the Ministry of Agriculture, Forestry and Water Management.

- The area of water resources management is defined within the *Law on Waters* and is under the competence of the Ministry of Agriculture, Forestry and Water Management.
- Archaeological localities of the offshore and historical monuments and monuments of cultural heritage are protected by the *Law on Protection of Monuments of Cultural Heritage*, and are under the competencies of the Ministry of Culture.
- The Military–hydrographical institution is responsible for the hydrography of the sea.
- Marine biology research and monitoring are under the Republic Hydro-Meteorological Institute and the Institute for the Biology of the Sea.

## 4.6 Albania

### 4.6.1 On-shore planning in Albania

The territorial planning authority in Albania resides at the national and local levels. The national territorial planning authority is with the central Government, i.e. (under the current legislation) the Territorial Planning Council of the Republic of Albania that adopts and approves/rejects different urban and spatial planning studies. The **Institute of Urban Studies** is the state body at the national level that prepares urban studies and projects defined by the Urban Planning Regulation. This institute is under the Ministry of Public Works and Transport.

Major investment and physical development plans are prepared by the **National Institute for Physical Planning**, except in the case of larger municipalities like Tirana, where the local governments are in charge. The local level prepares and approves **local plans**. The Ministry of Public Affairs, Transport and Telecommunications co-ordinates the local government and the National Institute to ensure compatibility among plans.

There are two major problems with the Albanian physical planning:

- Due to unclear ownership structures, the preparation of spatial plans is very slow and thus lagging behind the rate of construction; and
- The preparation and implementation of the infrastructure master plans is even slower than the preparation of the (partial) physical plans for the same areas.

The lack of physical plans is considered to be one of the major obstacles to sustainable coastal development. It has led to uncontrolled construction and to the inadequate provision of infrastructure, particularly where tourism development is planned.

In the past decade, Albania implemented a series of international and national projects on coast-relevant themes:

- 1994-1995 the World Bank financed preparation of the ICZM plans for the Albanian northern and southern coastal regions;
- using the same methodology, the 1993-1996 UNEP/MAP Coastal Area Management Programme (CAMP) focused on the central coastal region between Durrës and Vlorë;
- In 2000, the *National Biodiversity Strategy and Action Plan* (BSAP) was adopted fulfilling the requirements of the Convention on Biological Diversity and Pan-European Strategy on Biological and Landscape Diversity;
- *The National Strategy on Tourism*, prepared in 2002 with the help of the GTZ, made a clear reference to the great potential of the Albanian coast for a sustainable tourism development. Strategic Environmental Assessment was here identified as an essential measure.

### Albanian ICZM and Clean-Up Program

The currently-running 7-year World Bank project “The Integrated Coastal Zone Management and Clean-Up Program” has the main objective of protecting the Albanian coastal ecosystems, resources and cultural assets and promoting their sustainable development and management. The main outputs are:

- establishing an integrated coastal zone management (ICZM) institutional and policy framework;
- strengthening the broader regulatory and enforcement capacity at the central, regional and local levels for protection of coastal and marine natural resources;
- increasing access to basic services associated with improvement of the quality of life and attractiveness of the coastal areas; and
- implementing sub-projects aiming at promoting sustainable tourism sector development.

Its first phase aims at setting and initiating an ICZM approach to **reduce coastal degradation** through improvement of regulatory policy, governance and development/land-use planning; improvement and provision of public services and preservation of the cultural heritage in the southern coastal villages; support to priority regional infrastructure investments in the southern coast and addressing the needs to reduce health risk in Porto Romano and protect the Butrint National Park.

The second phase aims at supporting regulated and **sustainable tourism development** to serve as engine for economic growth by supporting further regional/municipal environmental infrastructure investments; promoting protected areas management in critical coastal and marine ecosystems; promoting nautical tourism development and public-private partnerships; addressing critical needs to reduce health risk in additional coastal hot-spots and further capacity building on urban planning and integrated coastal zone management.

#### 4.6.2 Off-shore management in Albania

Albania has neither experience in off-shore spatial planning nor specific regulations. Nor there exists a separate law or an institution responsible for coastal and marine areas. In practice, the institutional structure for coastal zone management relies on the capacities of **two ministries: the Ministry of Environment, Forestry and Water Administration, and the Ministry of Public Affairs, Transport and Telecommunications**. Additionally, the Ministry of Tourism, Culture, Youth and Sports contributes to the tourism development aspect. Another important player is the inter-ministerial Council for Territorial Development.

Each of the separate sectoral policies, which currently govern the Albanian marine space, is accompanied by its own implementation problems. Big problems are also posed by the illegal practice, such as dynamite fishing. All this results in the fact that the Albanian sea space is being used and developed in an overly uncontrolled manner.

#### 4.7 Summary of Spatial Planning and Management Systems in the Adriatic PlanCoast Countries

##### *Emilia-Romagna*

To sum up, the Italian legal framework for the integrated coastal and maritime planning is relatively advanced. Statutory spatial planning procedures are conducted in a **transparent, negotiatory, participatory** way. The level of horizontal and vertical co-ordination is thus considerably high.

In the sphere of land-sea integration, adequate laws (**Coastal Action Plans**) at the national, and, more significantly, regional level have either been adopted or are under preparation. Coastal zone is defined and a large network of marine protected areas is designed and adopted. Unfortunately, implementation guidelines for many of these enviable developments haven't been issued yet, and most of them remain only **on paper**.

Oddly enough, in the former Yugoslavian countries, the planning practice seems to have been better already in the past. With a strong focus on the social equality goals it was largely similar to the modern standards of sector integration (esp. of economic and spatial development components) and public participation. However, the totalitarian and highly corrupted character of the socialist 'centrally planned economy' evened out these potential benefits.

### **Slovenia**

In Slovenia, in the 1970's **maritime spatial plans were drafted** on a regular basis by the municipalities, while the current trend is to shift the maritime planning competence to the national level, which is causing some confusion among the executive powers. Also, the new laws on regionalisation of coastal planning are being only half-heartedly implemented.

Nevertheless, a high political commitment to ICZM can be accounted on in Slovenia<sup>2</sup> and a series of programmes and projects are currently running, the most prominent being the **CAMP Slovenia**. Another potentially interesting feature of the Slovenian coastal & maritime planning is its close correlation to **Water Framework Directive**.

### **Croatia**

ICZM in Croatia, in spite of the long history of coastal spatial planning, is still in its infancy. The only sector where a focus on coastal areas is present is the spatial planning. The **integration of other sectors has been insufficient**, with at least seven ministries and multiple institutions competing for the exclusive competence in the field of coastal management.

Here again, earlier activities in managing the Croatian coastal area were more encouraging. In the 1970's the three Adriatic Physical Plans (Adriatic I, II and III) provided good and concise recommendations for physical and environmental management (especially Adriatic III). On this basis the Croatian **Office for the Sea and Coasts** was established with such tasks as programming, planning and monitoring the measures to combat marine and coastal pollution. This institution, although structurally underdeveloped, still offers a great potential for ICZM in Croatia.

### **Bosnia & Herzegovina**

At present, the B&H spatial planning system is hardly operating at all. There are numerous reasons for that: there is a shortage of experts and planners, and the local authorities are usually unprepared for planning tasks, to name just a few. A large problem is the lack of data for planning (e.g. maps and strategy of spatial and economic development), and the procedures of preparing the spatial-planning documentation are too bureaucratic. The current practice of land-use management does not see the bigger spatial picture but only the one-time spatial interventions.

### **Montenegro**

The Montenegrin spatial planning system seems to be particularly suffering under the still unfinished transition process. Too abrupt changes, such as the **abolition of all "old" spatial plans**, jeopardise harmonious space development. The main challenge is currently the **safeguarding of public interest** and the unique natural assets of Montenegro in the conditions of almost uncontrolled entrepreneurs' freedom. This task is further limited by an inadequate

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<sup>2</sup> RUPPRECHT 2006, 147

system of **collection of spatial data** and **bad communication** patterns among the stakeholders, all of which creates an unfavourable environment for integrated management.

On the other hand, the Montenegrin coastal management system has one major advantage over other Adriatic countries: the entire **maritime zone**, comprising the narrow coastal strip, is considered a **public domain** for general and special public purposes. The protection, maintenance and sustainable management of this domain is entirely vested to the Public Enterprise for Coastal Zone Management (**JP “Morsko Dobro”**). Although by Montenegrin law the preparation of maritime spatial plans is required, so far no such plan exists and the maritime use is determined through temporary programmes of a large number of institutions.

### Albania

In Albania, the **lack of spatial plans** is considered to be the biggest obstacle to sustainable coastal development. The rate of their preparation is much too slow and thus disables them to prevent the widespread illegal construction practice. Re-privatisation is one of the major concerns of the Albanian Government. All in all, a fairly good legal basis for coastal spatial planning currently exists in Albania, but the problems is with its implementation.

Numerous, mostly foreign-driven, structural projects on themes such as environment and tourism were launched in Albania over the last years. Despite their obvious sustainability approach, they were not co-ordinated in the ICZM understanding. Neither is there a legal document or strategy concerning the off-shore Albanian areas.

As could be generally concluded from the above chapters, Maritime Spatial Planning as such is **inexistent** in the examined Adriatic countries. Only Slovenia and, to a limited extent Montenegro, have had some spatial planning experience in off-shore areas to date. While in terms of spatial planning, the Adriatic Sea is still a *tabula rasa*, in terms of the actual uses and conflicts it is in fact a very crowded place. Unfortunately, the maritime activities are dealt with in a wholly uncoordinated, un-integrated manner. The INTERREG IIIB PlanCoast pilot projects are going to be pioneers in co-ordinating the different uses in a sense of an Integrated Coastal and Maritime Management.

**Table 4: Summary of Spatial Planning Systems in the Adriatic Region**

	Emilia-Romagna	Slovenia	Croatia	BiH	Montenegro	Albania
<b>Responsible Ministry for Coastal Planning</b>	Some different Ministries	Ministry of Environment and Spatial Planning	7-8 Different Ministries	Neretva Cantonal Ministry for Civil Engineering and Physical Planning		1. Environment, Forestry and Water Administration 2. Public Affairs, Transport and Telecommunication
<b>Planning Level Responsible for Coastal Planning</b>	State Region Local	State Inter-local Local	State Local	State Canton	State Local	State Local
<b>Basis for ICZM</b>	Regional Coastal Plan	Conception of Spatial Development of South Primorska	Governmental Regulation on Development and Protection of Coastal Protected Area	No	Law on Maritime Domain, National ICZM Strategy	National ICZM Strategy (under preparation)
<b>Maritime Planning</b>	Sectoral plans	Yes- optional for state authorities	No, maritime activities co-ordinated by different sectors	No	Yes, but not influential on decision making except for ports.	No

## 5. Practice of Coastal and Marine Management

As could be concluded from the above chapter, there is almost no practice of MSP in the Adriatic region covered by PlanCoast yet. ICZM on the terrestrial part of the coast has also failed to be officially introduced, despite the progressing legal activities in some of the countries. However, a number of ICZM good practices do not require 'hard' legal measures – they can be regarded as informal measures. The following chapter will hence try to find out whether the current **practice** of coastal and maritime management in the examined countries meets the standards of integrated planning through the aspects such as co-ordination, stakeholders involvement, approach to information collection, etc. On this basis, proposals of improvement measures will follow.

### 5.1 Vertical Co-operation in Spatial Planning

This chapter will try to assess, whether the **law and practice** of the so-called vertical authority co-operation in spatial planning complies with the high standards of Integrated Management.

The necessity of close **co-operation of administrative units** is an aspect of key importance for ICZM. The first prerequisite of a successful co-ordination is undoubtedly effective **communication**:

“**Communication**: exchange of information, usually by talking or writing, but today increasingly through electronic media. Good communication keeps people in the picture; provides opportunities for dialogue, for discussing and resolving problems; and helps to attract and sustain interest to get things done.”<sup>3</sup>

Successful communication means far more than a formal exchange of formalities. This is why experts are united in the opinion that **formalised** authority co-operation is not enough for successful ICZM. ICZM depends to a great extent on the **voluntary measures** such as communication skills to win and sustain the trust and mutual confidence of a wide range of coastal stakeholders. Stakeholders too, require the capacity to present and defend their points of view, but also, more profoundly, to listen to the rationales of others and make compromises. The most important prerequisite here is the general **air of openness and partner-like relationships** within stakeholders. Hierarchic and strictly sectoral ways of thinking and policy-making are highly incompatible with the idea of ICZM.

Integration of sector policies can be extremely difficult in practice. Spatial planning cannot substitute the whole process of inter-sectoral co-ordination. It can however, provide an efficient framework through its established procedures of vertical and horizontal co-ordination in preparation and adoption of spatial plans. These are similar in all EU countries, i.e. Italy, Slovenia, but also Croatia and Montenegro. Major steps include:

1. Spatial planning stakeholders are informed about the planning start and asked to provide guidelines within their competencies;
2. On this basis a draft is made by the responsible planning authority;
3. The draft plan is put on public display, followed by public debate (Slovenia, Italy);
4. Plan makers take a stand on these observations and prepare the final draft;
5. Stakeholders are asked once again for the approval of the final draft → harmonisation;
6. The harmonised plan is submitted for adoption to the higher-level administration.

According to such or similar procedure, plans and programs are harmonised at local, regional and sometimes even national levels (Slovenia).

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<sup>3</sup> HYDER 1999, 33

## **Emilia Romagna**

The Italian region of Emilia Romagna has recently introduced innovative tools with the aim of unifying and raising the quality of the system through simplification and use of informal tools (negotatory approach) in co-operation among institutions, more transparency and participation. The new administrative model is based on agreements, sanctioning the passage from an expansion urban planning to a transformation urban planning.

Also in Emilia-Romagna, the recent regulation of urban and territorial planning prescribes that the adoption of the Provincial Territorial Co-ordination Plan is preceded by a **Planning Conference** whose members discuss and organise the analytical-cognitive apparatus, along with the objectives of the Plan. The regional law prescribes the Planning Conference for land use plan and for sectoral plan with territorial impacts. The instrument of public debate appears to be a good opportunity for the stakeholders to get in a personal contact with each other.

## **Croatia**

A **certain level of vertical integration** among competent authorities at all administrative levels in spatial planning has been achieved in Croatia. The plans are being co-ordinated at various levels to avoid conflicts between objectives, strategies and land uses. However, this applies almost exclusively to spatial planning in the land part. In addition, national goals related to coastal (land and maritime) areas are not always integrated with the county and local ones, which is the consequence of the fact that the *Spatial Planning Act* has a limited effect on the sea.

The question of whether the authority co-operation in spatial planning of the Adriatic Countries is pursuing a **partnership approach** cannot be answered easily. The legal basis seems to be there. In reality, however, in spite of the transformation attempts, especially the vertical relations between the different public institutions are still bound by the post-communist rigid hierarchical structure, frequently enough characterised by dependence and mistrust on one side, and arrogant despotism on the other.

It is also clear, as stated by the 2002 EC Recommendation on ICZM, that real co-operation for an integrated planning takes much more than just a formalised stocktaking procedure. The authority co-operation defined by law is usually a shallow, one-way procedure, giving no room for negotiation, compromise finding or even physical meeting. Such legal regulations provide only frames for the further, **voluntary measures**, which should be based on **communication – dialogue, discussion and negotiation**, and not on merely exchanging claims. Guidance in this respect should be provided by legal (example of Emilia-Romagna) and advisory bodies.

## **5.2 Horizontal Co-ordination and Land-sea Integration**

On the land side of the coast, sectoral integration is in some cases (Italy, Croatia, Slovenia) guaranteed through the statutory spatial planning system (see above). On the sea however, there are no comparable co-ordination instruments.

**Inter-sectoral integration** is the integration of goals and measures among different policy sectors e.g., spatial planning or tourism. This is also called "horizontal integration". In the concept of ICZM links between those public institutions (ministries, research institutes, departments) must be created or strengthened.

A specific type of horizontal integration is the **land-sea-integration**, as these two kinds of space are traditionally divided by a transparent "administrative wall". Completely different ministries are responsible for similar activities on both sides (e.g. terrestrial transport and maritime transport). It is, however, clear that activities at either side influence the other and therefore have to be co-ordinated (Coastlearn 2007). This is one of the arguments for the necessity of Maritime Spatial Planning.

## **Slovenia**

Slovenia is the only one of the examined countries where attempts have been made at integration of activities between land and sea and the relevant legislation. Some important ICZM instruments such as EIA, spatial planning, and public participation are already in use, but in practice the synergies of land and sea have not yet been fully capitalised.

An interesting example of horizontal harmonisation between land and sea sectors can be observed in Slovenia on the basis of the **EU Water Framework Directive**. In case of the *Detailed Water Management Plan* co-ordination with spatial planning and sectoral plans is ensured because every spatial plan must obtain the Minister's consent that it is in compliance with water management plans and the Water Act provisions which regulate the interventions into aquatic, coastal and other areas. Moreover, the participation of public and stakeholders is ensured through the **Water Council** (representative body which consists of the representatives of local communities, the holders of water rights and non-governmental organisations). The Water Council monitors the implementation of the national water management programme, participates in the preparation, monitoring and implementation of water management plans.

## **Croatia**

In Croatia the regulatory system that governs sea areas is characterised by a **sectoral approach** of powers vested in national authorities – harbours, fishery and mariculture, navigation, energy, directorates and public companies managing particular resources. Although the spatial planning law requires the co-operation of the majority of institutions dealing with ICZM, this co-operation is only formal and thus not working properly in terms of the weighting of the different sectors' views and interests.

## **Montenegro**

The Montenegrin Spatial plans have a **high level of integration of different sectors**, but only in the sphere of basic land use and physical changes in space. Problematic is the implementation of the plans, which is delegated to stakeholders at different levels of competence.

## **Albania**

**Lack of co-ordination** and synergies among different responsible authorities has been recognised as a serious gap in the Albanian ICZM legal frame. It is particularly visible it is in terms of the integration of sea and land use approaches.

## **5.3 Stakeholders Involvement**

Stakeholders involvement is a generic term containing the multiplicity of terms, such as “public participation”, “public consultation”, or “citizen consultation”. Stakeholder in this meaning is anyone having a “stake” i.e. interest in the plan, either as a civil person or a group (e.g. society, club, company). As these terms are being widely confused, the aim of this chapter is to draw a line between the different terms by exemplifying the practice of spatial planning in the Adriatic region countries.

Several aspects of citizen involvement are subject to statutory requirements world-wide. The 1998 *Aarhus Convention* (ratified by Italy in 2001, Slovenia and Albania 2005, Croatia signed 1998, but not ratified yet, Bosnia and Montenegro have neither signed nor ratified) ensures

everyone access to information and decision-making in environmentally-relevant policies.<sup>4</sup> In consequence, the Italian, Slovenian, Albanian and Croatian law gives everyone the possibility to get involved in the preparation of spatial plans twice: prior to the preparation of the document draft and thereafter, similar to the procedure of institutional co-ordination (see chapter 5.1).

Overall, experts agree that the sustainable development of the coastal areas cannot be achieved solely from top to bottom, i.e. without the involvement and support of the coastal communities. Some potentially unpopular plans, e.g. the designation of new nature protection areas, can in this way win on acceptance and even be optimised by the local hand-on information. An intensive public involvement is therefore one of the central themes of ICZM. The mentioned 2002 EC Recommendation on ICZM postulates the:

*"f) involving all the parties concerned (economic and social partners, the organisations representing coastal zone residents, non-governmental organisations and the business sector) in the management process, for example by means of agreements and based on shared responsibility."*<sup>5</sup>

Three essential terms need to be differentiated:

- **Information** is defined as a one-way relationship that covers both 'passive' access to information upon demand and 'active' measures by government to disseminate the information.
- **Consultation** is seen as a two-way relationship in which organised and unorganised citizens provide feed-back to governmental policy proposals.
- **Participation** is regarded as a two-way relationship based on a **partnership** of citizen and government, in which citizens actively engage in the policy making. Active participation recognises the capacity of citizens to discuss and generate policy options independently – although the responsibility for the final decision rests with government.<sup>6</sup>

The latter one, participation, is regarded as the most ambitious and interactive possible form of public involvement, and thus superior in terms of ICZM.<sup>7</sup>

### **Emilia Romagna**

An **innovative approach to public involvement** through wide consultation, subsidiarity and participation was adopted by Emilia-Romagna in 2000. The law prescribes that "the development and approval processes of spatial and urban planning instruments must ensure consultation with the economic and social associations, and must guarantee specific procedures for publicity and consultation of citizens and associations for the protection of common interests".

### **Slovenia**

**Publicity** is an important principle also in the modern Slovenian spatial planning system. Everybody has the right to be informed on the procedure of spatial planning documents preparation at both national and municipal levels and participate in such procedures through the expression of initiatives, opinions and in other ways, as in compliance with the provisions of the Spatial Planning Act. The competent national and municipal bodies have to enable every person to get an insight into spatial planning documents, background materials and other documents related to spatial planning and to inform the public on spatial planning issues.

### **Bosnia & Herzegovina**

Analysing laws of B&H we can conclude that B&H legislators foresee some forms of public participation in decision-making. Referendum, civil council, and town quarter administrations are crucial ways of direct public participation recognised in the legal framework of B&H.

<sup>4</sup> HYDER 1999, 113

<sup>5</sup> EC 2002, Chapter 2 f)

<sup>6</sup> OECD 2001, 12

<sup>7</sup> HYDER 1999, 4

However, a huge number of citizens still do not believe that it is possible for them to make an impact on decisions of the authorities, individuals, or companies which have negative impacts on their lives. The political corruption, lack of information, and also a poor impact of citizens' earlier efforts diminish their willingness to participate. Although considerable improvement has been achieved in communication with NGOs, co-operation in the field of citizens' pressure on governmental bodies is not strong enough.

### **Croatia**

In Croatia public participation has formally been introduced into the *Spatial Planning Law* of 1980. In 1998 more detailed procedures, such as organisation of **public hearing and presentation**, were introduced. Participation is now required at all stages of the process, from issue analysis to policy-making and action planning.

It can be generally concluded that the public involvement in decision-making is well founded in the planning tradition of the former Yugoslavia countries Slovenia, Croatia, Montenegro and Bosnia Herzegovina. The continuation of these traditions under the market economy conditions is the nowadays challenge.

Summing up, in all of the examined countries of the Adriatic region, with the exception of Albania, the legal regulations of **citizen involvement** are correct and internationally up-to-date. In practice, however, they fail to be successful for two main reasons:

- the planning process and the very plan is presented in a hardly understandable way for ordinary citizens;
- local governments are not aware of the benefits of involving the citizen, and therefore show no commitment to the statutory requirements.

Thus, the stakeholders involvement practised in the Adriatic region cannot be referred to as real **participation**, but at the most as a **citizen consultation**, which has in fact little impact on the policy and decision-making. Here also, similarly to the described above authority co-operation process, the fulfilment of the legal minimum is not sufficient to meet the goals of integrated management.

## **5.4 Nature Protection**

Since Integrated Coastal Zone Management is regarded as a tool to achieve **sustainable development** of coastal zones, nature protection is one of its three key goals, together with social welfare and economic viability.

Protection and preservation areas are by far not the only means of protecting nature and landscape. Ideally, ecological goals and measures should be **mainstreamed** in ICZM, i.e. integrated in all management resolutions, e.g. transport development policy, tourism development policy, etc. Still, the strict protection of some particularly endangered areas is indispensable in the coastal zones, where space is generally scarce and ecologically sensitive. In this report a closer look will be given to protected areas, and especially marine protected areas, because their management plans are very interesting from the point of view of spatial planning.

**Marine Protected Areas (MPAs)** aim to protect in an integrated way sea and coast (often islands or whole archipelagos) of outstanding environmental and landscape quality. This nature protection tool is growing in popularity in the European Union as a consequence of the 1992 EU Habitat Directive which encourages the designation of Special Protection Areas (SPAs) for birds and Special Areas of Conservation (SACs) for other species and for habitats, and also on water. Together, SPAs and SACs make up the **NATURA 2000** network of protection areas.

**Particularly Sensitive Sea Area (PSSA)** is an area that needs special protection through action by the International Maritime Organisation (IMO) because of its significance for recognised ecological or socio-economic or scientific reasons, and because it may be vulnerable to damage by international shipping activities. When an area is designated by as a PSSA, specific measures can be approved by the IMO to reduce the risk created by the shipping activities. There are world-wide 10 sea areas currently proposed as a PSSA, among them the whole **Adriatic Sea**.

### **Emilia Romagna**

Marine protection areas play a key role in the Italian marine planning activity. At present, there are 24 marine protected areas totally protecting about 184,000 hectares of sea and about 580 kilometres of coast.

Protected sea area management is entrusted to public bodies, scientific institutions or recognised environmental associations also co-operating with one-another. At present, most of the protected sea areas are directly managed by the communes in charge of the territory where the areas are.

### **Croatia**

There are eight MPAs in the Croatian part of the Adriatic. These can be divided into two main categories:

- National park (Brioni islands, Kornati archipelago and island of Mljet) which traditionally covered only the terrestrial components and have only recently been expanded to the surrounding marine areas;
- Special reserve on the sea, (Lastovo and Losinj – Dolphin Reserve).

The **Losinj Dolphin Reserve** is the first MPA dedicated specifically to the protection of the bottlenose dolphin (*Tursiops truncatus*) population in the Mediterranean, as well as other endangered and protected species such as the loggerhead turtle (*Caretta caretta*), sea grass (*Posidonia oceanica*) beds, coral biocenoses and nesting sites of the common European shag (*Phalacrocorax aristotelis*). This area is known also as an important underwater archaeological sites, particularly the site where the Greek bronze statue, a priceless replica of Lysippos' Apoksymenos, was discovered. With 526 sq. m it is the biggest marine protected area of the entire Adriatic.

### **Albania**

Biodiversity management in Albania is regulated by the 2000 National Biodiversity Strategy and its action plan. In respect to the coastal area, the Strategy proposes a network of **25 marine and coastal protected areas**. Consequently, a wide range of activities which give rise to impacts on biodiversity are foreseen along with the respective measures, including landscape, and Water Framework Directive management planning.

In conclusion, there is a large network of existing, mostly terrestrial protection areas in the Adriatic region, and a lively activity can be observed in the designation of new protected areas on the sea. Speaking of the latter ones, enforcement seems to be a widespread problem. If an

MPA cannot be adequately marked on maps and on the sea by buoys, trespassing can occur and protection goals will not be kept.

While a successfully managed MPA can increase the numbers and diversity of marine life, and improve the overall health of the system, it can, in certain cases, also have a limiting impact on the local communities, e.g. loss of fishing as an economic or food resource. Proponents argue, however, that MPAs help regenerate fish stocks in the surrounding areas and so, on the long run, have a positive economic impact. In any case, MPAs are a clear case of maritime spatial planning, as their location and regulations have to be carefully planned and consulted among all stakeholders.

## 5.5 Impact Assessments

A whole “family” of impact assessments was the first political attempt to co-ordinate the interests of different sectors with an overall aim of environment protection (EIA), then gradually expanded to cultural, social and economic values (SEA and TIA). Thus, they represent the striving for sustainable development in a pure form, which is also the leitmotif of the ICZM idea. A view on how EIA and SEA directives are implemented in the different Adriatic countries might be therefore enlightening in terms of their approach to ICZM.

According to the EU legislation, public or private projects (e.g. roads, railroads, power transmission lines, harbours, airports and dams) with a possible significant impact on the environment, whether natural or human, must undergo the **EIA - Environmental Impact Assessment** (EU Directive 1985), which can be at national or regional levels, according to the planning categories.

The **SEA – Strategic Environmental Assessment** (EU Directive 2001) procedure evaluates plans and programmes that might have a significant impact on the environment. The main purpose of the SEA is to verify if the programme fits the objectives of sustainable development, i.e. if it integrates the principles of sustainable development, and to which extent it influences the environmental quality. A strategic assessment aims at checking if the objectives are consistent with the ones of sustainable development, and if the actions planned are consistent and suitable to achieve these objectives.

In contrast, the **Territorial Impact Assessment (TIA)** is designed for large-scale development projects which have considerable impact on regional development (E.g. highways, high-voltage lines, major windmill parks, large holiday villages). The components of TIA are, besides environment, social, economic and cultural assets. Important prerequisite of TIA is the existence of alternative options of route /location, as the goal is to optimise the project and not to merely assess it.

### **Emilia Romagna**

The Emilia Romagna region has developed a procedure very similar to the SEA, called **VALSAT**, the acronym for “environmental and territorial sustainability assessment”, applied in spatial planning according to the regional law No. 20/2000. This law has anticipated the SEA directive contents only at the regional level. VALSAT has to demonstrate that the plan implementation would produce improvement of territorial conditions, or at least that it would not have negative impacts. It should safeguard the transparency and the political and economic viability of the planning processes.

### **Slovenia**

Important features of the Slovene **Integrated EIA** procedure are the transparent preparation of the environmental report, quality and public participation.

### **Croatia**

Since as early as 1982, a **simplified application** of the Environmental Impact Assessment (EIA) has been practised in Croatia. According to it the so-called *Environmental Impact Statement* is a compulsory part of project documentation for particular investments. This activity has, however, never been consistently incorporated into the spatial planning system.

### **Bosnia & Herzegovina**

EIA procedures in B&H should guarantee a high level of environmental protection through the protection of air, water and soil. If other permissions, including planning permits, construction permits, etc. are required by another law, all these permissions will be given together in the EIA, which means that they will all be harmonised with the environment. In that sense, all bodies competent for issuing permissions will be included in the process of EIA/SEA.

Considering the fact that the existing administrative structure of B&H is rather complicated, the main defect in the current practice of EIA is the unclear division of competencies among different levels of administration.

### **Montenegro**

In Montenegro environmental measures have been an **obligatory part of all spatial plans since 1979**. The procedure involved the public in the decision making on a maximum level and comprised almost everything that has been defined as the obligatory contents of SEA and EIA today. The current laws, apart from the obligatory environment protection component and protection of historical monuments in the plans, require the preparation of EIA for all the facilities that can pose a threat for the environment, while the plans and projects with a bigger scope of work need to have SEA.

The “heart” – main part of every EIA and SEA is the **environmental report** (or Environmental Impact Statement) describing the anticipated impacts. However, the report **can by no means substitute the whole process of impact assessment** which covers, among others, participation, stocktaking, drafting of report, implementation of mitigation and adaptation measures and monitoring. An un-integrated environmental report (such as practised, for example, in Croatia and Slovenia) would be just an appendix to the planning documentation without a major impact on the project.

In order to make EIA effective the major challenge is its integration in the statutory planning and management processes. This is not necessary in the case of SEA, which by definition contains extensive participation and stocktaking processes and can thus be regarded as a sovereign procedure.

A thoroughly conducted EIA, such as the Italian or Slovenian practice, can be a good basis for ICZM. SEA can do it even in the absence of, or parallel to the statutory spatial planning system. An urgent need for a Strategic Impact Assessment in the transboundary conditions (Slovenia, Croatia and Italy) is visible in the case of gas terminal projects in the Gulf of Trieste.

## **5.6 Data Collection and Processing**

Coastal management is only as good as the data on which it is based. Three aspects are especially important from the point of view of ICZM: data access (collection), processing and dissemination.

Basic documentation on the coast shall include: data significant for use of space; analyses and studies of space; geodetic – cadastre, topographic, morphological, geological, seismic, hydrological, pedological, and climate data; cadastre of underground installations and other strata and analyses regarding suitability of the terrain, endangered and pathogen zones, zones of possible industrial hazards, as well as a graphic layout of the current state of spatial development with analysis and evaluation of the state of environment. It should also contain the monitoring of implementation of spatial plans, records of public participation, etc.

### **Emilia Romagna**

The Italian **Sea Protection Department** started monitoring the sea water quality 10 years ago, in order to improve the knowledge and the protection of the sea and marine ecosystems, to identify possible degradation situations, and to prevent and reduce water pollution. Regions carry out the monitoring through environmental agencies, universities and research institutes. Collected data are periodically transmitted to the Regions and to the national **Data Bank of the Sea Defence System** where they are available for users.

Italy is oriented towards the European concept of **Environmental Quality Objectives**. Such objectives imply searching **quality indicators** for the marine coastal environment, that can be identified on the basis of the natural features and different uses of the coastal areas.

The Italian **bathing water monitoring network** is highly widespread, with one sample collection point every 2 km, and even every 100 m in river mouth areas, making altogether 4,600 sample collecting points for coastal waters and 500 points for lake and river waters. In comparison with the European general rules (EC directive 76/160/CE), Italy has adopted more precautionary criteria, having as a point of reference the guiding values, instead of the limit values.

### **Slovenia**

In Slovenia, the implementation of spatial regulations is supervised by the **Inspectorate for the Environment and Spatial Planning** of the Ministry of the Environment and Spatial Planning. The Inspectorate maintains the **Spatial Information System** to facilitate the implementation and monitoring of the implementation of national and municipal tasks in the area of spatial planning, including the preparation and adoption of spatial planning documents. The Spatial Information System contains data on:

- protection of the environment and nature and genetically modified organisms;
- water regime and water regulation and management;
- urban planning and construction work;
- meeting of basic building requirements;
- housing affairs;
- land survey activities.

In addition, the Slovenian Spatial Information System includes tools that enable the preparation of spatial planning documents and monitoring of their implementation in electronic form, as well as methods and procedures to support co-ordination, participation and involvement of the public in the procedure of spatial planning documents adoption.

Spatial planning inspection covers urban planning and construction works, the meeting of basic building requirements and land survey activities. In the event of illegal construction, a construction inspector orders to stop construction immediately or to remove an already

constructed building or a part of it by a specified deadline and at the expense of the person under inspection. In addition, a person under inspection has to restore the land into its previous state or otherwise rehabilitate the land if it is not possible to restore it.

### **Montenegro**

In Montenegro, the Physical Planning Act regulates not only the physical planning, but also the **monitoring of the physical space condition**. Monitoring of the land use involves the establishment and maintenance of records with documents on land use, preparation and adoption of reports on physical planning, preparation and adoption of physical planning and development programmes, as well as the establishment and maintenance of an IT system on land use.

A significant drawback of the data collection system in Montenegro is that there are many institutions with overlapping responsibilities for this task.

### **Bosnia & Herzegovina**

In the coastal Neretva Canton of the B&H there are many problems relevant to the information base for planning and management. Most of the existing information is in the hands of scientific and research institutions, and there is little information on problems of land, monitoring of plans implementation, indicators of sustainable development, use of management instruments, level of awareness of coastal problems, etc.



## 6. Gaps and Recommendations

### 6.1 General: Legal Framework

In the examined countries there is a multitude of laws making it difficult to identify in which case which regulations have to be followed. Also, a consistent **set of laws** directing coastal governance and management is usually lacking. The main legislative and policy frameworks governing the development on the coast are usually planning instruments that have a physical preponderance and little room for needs of integration of different sectors and participation of stakeholders.

In some cases (e.g. Croatia) it is reported that the existing planning legislation is not sufficient for sustainable management of the coast. **Deficiencies in law enforcement** are also reported, and the existing laws focus on the establishment of protection measures rather than management and enforcement (e.g. Italy). Broad policies directed at e.g. sustainability are often difficult to implement.

In none of the Adriatic countries there is a necessary legal and regulatory frame to allow for **maritime spatial planning**, nor have the relevant institutions been yet entitled with maritime spatial planning procedures. A **new legal basis** is therefore required to give equal weight to all land uses and development interests, including agriculture water management, environmental management, nature protection, tourism, etc. Moreover, to allow for improvement of Maritime Spatial Planning, the said regulatory frame has to include provisions for the MSP instruments, legislation, institutional set-up, technical framework and procedures.

There is a multitude of “dead” laws in the Adriatic region countries. Therefore it is now necessary, in the first place, not only to adopt new documents in the area of maritime planning and integrated coastal zone management, but, more importantly, **to improve the existing legislature** related to these areas, with clear provisions to define the role of such documents in the system, as well as the responsibility of the stakeholders for the implementation of these documents.

**Spatial planning** is one of the pillars of ICZM and potentially a suitable means for its implementation. In some of the Adriatic countries its role could be further enhanced. The spatial planning system of Croatia is a good example of technically right goals and objectives, which however prove to be insufficient in the absence of implementable, clear and precise development regulations and control measures.

The first step towards this regulatory frame is the **defining of coastal area** in legal terms. This law will have to define the important terms such as the exclusive economic zone, territorial waters, coastal waters, coastal strip, coastal zone, coastal area and coastal hinterland. It will have to provide management guidelines for each of the above-mentioned areas.

The Montenegrin coastal law, similar to French and Spanish, defines the shoreline fringe and the shore towards the sea as **public domain**, and restricts construction and other uses on the private property. Such measures have been reported to be quite successful for the public property part and are implemented through national level government organisations.

- ☞ **Adjust spatial planning tools** in compliance with the ICZM Strategies (if existing)
- ☞ **Strengthen spatial planning** through integration of EIA procedures
- ☞ **Operationalise the existing laws and strategies** through adequate directives
- ☞ **Adopt specific maritime legislation**
- ☞ **Define the marine and coastal areas**, on and off-shore, and set up rules of their protection
- ☞ **Declare the coastal strip as a public domain**

## 6.2 Institutions

A great diversity exists among the Adriatic countries in terms of government entities responsible for coastal and spatial planning and management.

In the terrestrial part of the coast the responsibilities for spatial planning are relatively centralised in one or two ministries, usually urban affairs and environment. Things get complicated when it comes to maritime competences: as there is no legal basis for maritime planning (except for Slovenia and Montenegro – but even there it is not practised yet) there is no clear responsibility attached to one institution. As a result, common responsibility means in practice: no one feels responsible.

It would be desirable to have these functions integrated in **one authority** in order to ease the reconciliation of different interests or to have co-ordinating institutions or platforms where different parties can come together. The experience of the Montenegrin Coastal Enterprise “Morsko Dobro” shows that this is the right way forward. At the same time, it has to be stressed once more<sup>8</sup> that there is no need to create new institutions, since there is, in almost every country (e.g. Office for Coast and Sea – Croatia) an agency which could take the lead for the implementation of ICZM, it only has to be aided with additional funds and resources.

Countries also differ greatly with respect to the degree of decentralisation. Italy and Bosnia & Herzegovina follow a very decentralised, federal or quasi-federal type of division of functions and tasks among national, regional (autonomous communities) and local (municipalities) levels<sup>9</sup>. In all Adriatic countries except Italy the regional planning level is missing at the moment. In Slovenia attempts are being made to introduce such an intermediate level. It is indisputable that some elements of land-use management and of service provision cannot be fully addressed at the local scale (for example, nature protection or waste disposal). National level is in larger countries often too far away and always too bureaucratic. Therefore, for the purposes of ICZM, a **second level** of land-use and development planning is urgently needed to address issues which arise across municipal boundaries. Also, the Water Framework Directive river basin management plans and Regional Environmental Programmes are situated at regional level.

It can be generally concluded, that while all political levels should feel equally charged with carrying out ICZM, a clear division of this responsibility is recommendable. The national level could, for instance, be responsible for the overall framework, the regional level for the implementation, and the local level for the conflict identification and resolution on an *ad-hoc* basis, e.g. in case of disasters.

- ☞ **Maritime Spatial Planning** is not merely a technical exercise – it's implementation is responsibility of all political levels
- ☞ **Reinforce the existing institutions**, do not create new ones
- ☞ **Entrust one single cross-sectoral institution** with responsibility for implementation of coastal zone spatial planning

<sup>8</sup> BALTCOAST RECOMMENDATIONS 2006

<sup>9</sup> RUPPRECHT 2006, 147

### 6.3 Vertical Co-ordination

In most of the countries a certain lack of a proper nesting of vertical and horizontal structures is noticed to deal with the complex problems of the coastal areas. There is often an **absence of horizontal and vertical co-ordinating mechanisms** to derive collective and integrated approaches to coastal management, and there are often constraints due to overlapping competition, limited authority, and gaps in horizontal and vertical communication.

Too often, an excessively strict application of the subsidiarity principle leads in fact to a **thinning out of responsibility**, which is assigned to differing local competence levels, without taking into consideration their many interactions. Due to this **lack of co-ordination**, the complex relations between human activities and coastal areas are neglected.

Talking about co-ordination, i.e. co-operation between the different levels and branches of government, national laws frequently refer to **procedures**, overemphasising their formal aspects and leaving out of sight the informal tools that are vital for their effectiveness. In order to breathe life into the procedures and transform them into genuine creative processes, as recommended in the 2002 Recommendation the EU Commission, a widespread application of **voluntary measures** is indicated. Those include soft skills, and sometimes even such little steps as maintaining of good relationship with the neighbouring municipality. The bureaucratic reservation, fear of informal contact with other officials should be overcome, and at the same time negotiative, partner-like approach should be encouraged. In this light the obligatory **Planning Conference**, where all the administration stakeholders could physically meet and exchange view, other than in the currently formalised written way, is much recommended also for other countries. It is however additionally suggested, that such meetings should include also the representatives of business and private sector.

The idea of conference, or simply meeting, should be moreover maintained not as a one-time event, but as **constant information exchange platform** between the diverse territorial competences, at local, national and municipality levels. The mechanisms of **local Agenda 21** could be a good idea for the local level.

The voluntary measures, as their very name suggests, cannot be forced by any legal regulation. What is possible, however, is **to define** them and **emphasise their importance** in the legal regulations, hand-books, guidebooks, strategies, training, media and wherever else possible.

- ☞ Define voluntary working methods for the informal dialogue
- ☞ Set up regular meeting patterns to ensure constant exchange of information
- ☞ National level responsible for overall framework
- ☞ Regional level responsible for **implementation** – create intermediate level, if needed
- ☞ Local level responsible for **specific cases** and *ad-hoc* solutions

### 6.4 Horizontal Co-ordination

The awareness of the critical situation of the coastal areas has produced specific regulations, regional land-use plans, studies, inventories and research, legislative measures and tools, whose application should contribute to the protection of coastal environment. In most Adriatic countries the body of adopted legislation is satisfying, although quite far from reaching full-fledged efficiency and co-ordination between tools and players in the coastal areas. This refers not only to vertical but also to the horizontal competence.

An **improved stocktaking** is the platform for a sustainable development. It is needed in order to recognise synergies or contradictions between actions deriving from different policies, and to facilitate the compliance with needed arbitration, thus empowering the participating subjects.

**Lack of integration between land and sea areas** could be overcome by creating an **inter-ministerial committee** on coastal zone management. This committee would be a decision-making body, while the three ministerial departments mentioned above could serve as its secretariat and deal also with “day-to-day” matters.

☞ Inter-ministerial conference

## 6.5 Public Participation

The enormous potential of public participation for the coastal management is not fully made use of in the Adriatic countries, as the above study concluded. Both the public and the authorities in charge of it, do not fully believe in the benefits of this instrument. The strict following of legal procedures can in best case be called public consultations, but not the vital for **ICZM public participation**.

This calls for an urgent change. The authorities must become aware that citizen involvement is not a goal for its own sake, but a vehicle to achieving a better, or at least a **better accepted** coastal development. Once this is understood, as in the case of the authority co-operation, the application of **voluntary measures** becomes justified.

Voluntary measures of government to encourage people to participate in decision-making can be paraphrased as the so-called “sexy planning”. This could include, e.g. the following activities:

- Advertising in local media (other than the traditional newspapers);
- Public meetings organised in attractive, much frequented locations (e.g. shopping mall). Should be accessible for everyone, care/activities for children should be provided;
- Promising “fun factor” (e.g. combining it with a social event, providing food, etc.);
- Giving satisfaction and/or social prestige. Official acknowledgement on paper is a well-seen gesture;
- Giving fast, tangible results that are made public<sup>10</sup>.

Other voluntary measures transforming the widespread consultation into participation are, among others: newsletters, flyers, stakeholders’ meetings and workshops, exhibitions and fairs, web sites and media co-operation<sup>11</sup>.

In the Adriatic region there are numerous **NGOs and civil initiatives** defending the good condition of the coastal environment and welfare of the local people. With better co-operation among these local civil initiatives and NGOs, their voices would be better appreciated. Also, instead of only protesting and blocking decisions, it is recommendable for NGOs to focus on constructive co-operation with parliament representatives and governmental bodies which act in the field of environmental protection, such as science institutions, universities and mass media.

- ☞ **Information campaign** on benefits of public involvement
- ☞ **Handbook** of voluntary measure in public participation
- ☞ **Better linkage** between NGOs and civil initiatives
- ☞ **Improve the image** of environmental NGOs

<sup>10</sup> BALLNUSS 2004

<sup>11</sup> HYDER 1999, 77-85

## 6.6 Awareness Raising and Capacity Building

The above described stocktaking and participation effort can be successful if based on a complete and understandable information campaign. Everyone should be aware of the environmental status, the reasons of its changes, the implications of policies and measures at several levels and the available options.

Therefore, one of the most important recommendations is the long-term, intensive and widespread awareness campaign promoting the social engagement in spatial planning as well as in other areas of life. This is a large field of activity for schools, NGOs and media. A more aware society would start exercising a **bottom-up pressure** on protecting the coastal resources and public interest over the private. In Albania, ECAT Tirana is doing some considerable work in this field.

Additionally, a **specialist education system for ICZM** is needed. Currently, the education on spatial planning, as the closest discipline to ICZM, is not adequately taking ICZM into consideration. Biology and maritime sciences departments, on the other hand, are too technical and specialised in their areas. Therefore, a system of graduate or post-graduate training courses on ICZM should be developed in order to train experts, such as the one initiated by PAP/RAC, Croatia in the form of the **MedOpen Virtual Training Course on ICZM**. The networking of the different scientific and training institutes should also be established.

- ☞ Coastal information campaigns
- ☞ Training of ICZM specialists

## 6.7 Information as a Basis for ICZM

There is a significant correlation between the problem of data collection and distribution and the above-described public participation and awareness-raising problems. Public participation on one hand **provides** information, but on the other hand, it can only be done **on the basis** of already good and accessible information. Participation in non-transparent management conditions could result in misunderstandings and unnecessary conflicts.

Therefore, both information collection (stocktaking) and information sharing is essential for ICZM.

The **availability of information** is still a problematic field. Many coastal players, especially the private ones, are not willing to provide their data for coastal management. Frequently, information becomes a subject of unfair trade between the business sector and the relatively poor institutions. Moreover, the so dearly obtained data are often out-of-date and of insufficient quality. Digital data are still a rarity.

In order to overcome these logistic problems, a recommendation is made to formalise the flow of data, both in and out of the coastal management process. With the creation of a so-called “**coastal cadastre**”, all the identified coastal players would be obliged by law to provide certain data to the co-ordinating unit in regular time spans, e.g. every half a year. The law would also define the form in which data should be provided. In turn, the ready cadastre would be accessible to all the participating parties – public institutions – so that they would equally profit from it.

In terms of **information sharing**, the consensus reached by the partners of the PlanCoast project<sup>12</sup> is that:

- Access to raw data about space can be restricted by rights and fees;
- Processed data (metadata) should be accessible without restrictions to the professional circles (research) and public institutions → **coastal cadastre**;
- Ready-made planning “products” – plans etc, should be accessible to everyone.

Speaking of the latter ones, in most of the examined countries **lack of transparency** is reported when resource management decisions are made. Public participation required by law in spatial planning, EIA or SEA, or water basin management should theoretically guarantee free access to spatial planning information to everyone, but in practice (see Chapt. 5.3), there are still many restrictions to overcome.

In all Adriatic countries the monitoring of the coast is institutionalised in some way, frequently by a multitude of authorities. From the experience of Slovenia and Italy, for example, it has been clear that in order to avoid chaos in data and double work, this responsibility should be entrusted to **one central institution** (with local branches), which should be provided with adequate financial and methodological support by the government.

- ☞ Link coastal data collection and management, and monitoring of planning results in one institution
- ☞ Create coastal and maritime cadastre in GIS with metadata available for all public and private players associated in it
- ☞ Make planning results public through improved public participation schemes

## 6.8 Nature Protection

The most pronounced common problem to the majority of the countries along the Adriatic coast is the urbanisation of the coast driven by an ever-expanding tourism: urban sprawl, building of second homes, etc. Other common issues are: change of coastal dynamics; dwindling traditional fishery industry; degradation of ecosystems and habitats; environmental risks along the coast; loss and degradation of landscape; and environmental problems due to aquaculture, water sports activities and maritime transport. The issues of environmental protection are still insufficiently considered in decision-making. Additionally, in the countries like Croatia and Albania, for example, there is a lack of sustainable development vision for the coast.

With the progress of the ICZM idea, the **mainstreaming of ecological thinking** into coastal policy and management framework will follow. This means that environmentally friendly goals and measures should be integrated in every sectoral policy paper, e.g. transport development of tourism development strategies. However, ICZM does not have the power to create the change by itself. It should be anchored in the global, European and Mediterranean experiences in this field (read more in Chapter 8 Supporting processes).

Perceiving **tourism** as the main driving force of the coastal economy does not mean reducing the importance of and attention to other economic sectors, or making a separate “integrated tourism development plan” but rather privileging it as an ordering power of all others, because tourism will naturally thrive only if the sea is clean and full of fish, mobility on the coast works well, coastal agriculture is quality-based and environmentally efficient.

<sup>12</sup> PLANCOAST online, 3<sup>rd</sup> Conference in Supetar, Croatia

**Water saving policies** should be strengthened by multiplying the use of non-drinking water for industrial and domestic use, but specifically dealing with – throughout the national territory – the problem of water-demanding agricultural productions, which often coincide with the crops artificially supported by local policies.

**Fish protection zones** should become another integral part of maritime spatial planning. Situations like the current one in Croatia should be avoided, where the Zone of Ecological Protection and Fisheries was proclaimed but its restrictions are applied only to Croatian and other non-EU countries' ships, but not to EU ships. Such implementation of PEFZ regulation is perceived as unfair among Croatian fishermen and – above that – a highly ineffective one.

**Protected area management planning** presents a huge potential for spatial planning, especially off-shore, in absence of other planning instruments like statutory Maritime Spatial Planning. However, at the moment, a major reported gap regards the management plans of protected areas. If existing at all, these are too restrictive and not operational enough to keep up with the rapidly developing economy of the countries of the Balkan peninsula. On the contrary, good management plans should, beside the obvious restrictions, show possible links and synergies between protection and economical development, health and cultural values. Such approach to management planning is recommended already for NATURA 2000 areas<sup>13</sup> and Water Framework Directive water basin plans.

Designation of the Adriatic Sea as a **Particularly Sensitive Sea Area (PSSA)** could provide a significant regional co-operative framework, in line with the EU policy, and also highlight the awareness of the vulnerability of the Adriatic Sea environment. It can, moreover, have an echo in domestic political scenes, owing to increased public awareness of the need for marine environmental protection.

All in all, this chapter should clearly show that biodiversity is not a subject within the ICZM – on the contrary, biodiversity and landscape protection should be the central theme of all policies: be it tourism, fishery, infrastructure planning, etc. Maritime Spatial Planning, but also the impact assessment tools such as EIA and SEA, are perfect “Trojan horses” for this purpose.

- ☞ Ecology mainstreaming into sectoral policies (tourism, water management, fishery, etc.)
- ☞ Better planning and management of protected areas
- ☞ Economic consideration brought into the protected areas management plans
- ☞ Solutions of protected areas management plans should be supported by spatial plans
- ☞ Whole Adriatic as a PSSA

## 6.9 Financing ICZM

**Lack of suitable funding** is frequently claimed as a drawback of the national ICZM frameworks.

This report, along with other guidelines and strategies, could contain an even longer list of recommendations and advice. A justified apprehension emerges, however, that many of them would be impossible to implement for a reason which is rather down-to-earth: money. This problem is particularly visible on the Eastern shore of the Adriatic, where economic and political situation of the regional and local governments is frequently precarious.

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<sup>13</sup> Iddle & Bines 2004

Still, a good, profoundly strategic planning document cannot be a bargain. Alone the extra teamwork necessary to negotiate and integrate the sectoral parts takes incomparably more time and effort than just pasting together the independent expert contributions. Stocktaking is a long and effort-consuming process, and there is a high probability that essential data have to be purchased on unfavourable terms. Also, the preparation of GIS maps is, at least in the first years after technology adoption, in no relation to the cost of crayon-drafted map. The above-recommended additional measures for public participation cost considerable **extra money and effort**, too.

For all of these reasons, the last, but not least postulate of this paper is to create some **co-financing tool(s) for the coastal and maritime spatial planning**. This co-financing should be mainly provided by the state but it is possible to seek alternative options, such as EU structural funds or sponsorship. In case of the latter, caution is however recommended, not to create a situation where policy papers are tailored with respect to the interests of their “sponsor”, i.e. large investor.

In Croatia, for example, certain less developed communities (usually island and/or hinterland ones) get **financial relieves** and even support from state for the preparation of physical plans. Such practice is recommended for other countries too, provided that payment is coupled with the fulfilment of such ICZM criteria as participation, sustainability, GIS and so on.

Probably the best practice among the Adriatic countries can be observed in Montenegro – the country with the lowest BPK *per capita* among the examined six. In Montenegro, 20 million Euro have been invested so far in the coast development through public-private partnership between the Public Enterprise for Coastal Zone Management (JP “Morsko Dobro”) and contractors – users of the maritime domain. That pilot initiative seems to be successful in terms of sustainable financial management of the coast. Of course, much credit goes also the fact that the coastal zone of Montenegro is clearly defined and regulated, and the competences are centralised in a **single authority**.

- ☞ State co-financing mechanisms
- ☞ Private-public partnership
- ☞ Larger **trans-national planning** can be financed through international donor programmes

## 7. Supporting Processes

### 7.1 Regulatory Framework for ICZM in the EU

In the EU countries there is obvious degradation of coastal resources both in ecological and economic sense. Since 1996, at the European Commission level, the activities have started with the goal to identify the problems and find appropriate measures for the protection and sustainable management of coastal areas. In the period from 1996 until 1999, **Demonstration Programme on ICZM (ICAM)** was implemented in the EU member countries, which had as a goal provision of technical information on sustainable management of coastal areas, ensuring discussion on a wider level among various stakeholders in the planning field, management and use of coastal area. The Result of the Demonstration Programme was the consensus related to the ICZM measures in Europe, and those were written down in the EC ICZM Recommendation published in 2002. They were not legally effective, but recommended the preparation of ICZM national strategies in the EU member states, or otherwise required the reporting on this subject.

In order to assist the implementation of recommendations in the member states, an Expert Group was formed at the EU level, and a series of forums and meetings were held with periodical reports. In 2006 the report **Evaluation of ICZM in Europe** (Rupprecht 2006) was published, which identified the challenges and priority issues in the integrated coastal area management in the EU member states. The most important conclusion of this report was that none of the 24 EU member states had adopted National Strategy for ICZM according to the 2002 Recommendations. In 7 countries strategies were in the procedure of adopting, in 6 countries documents related to spatial planning were adopted with ICZM as an integral part, while in 11 countries design of National Strategies for ICZM was under way.

EU **Marine Strategy** of 2005 aims to protect marine ecosystems, to progressively reduce marine pollution, and to ensure sustainable use of marine services and products applying good governance principles.

The most recent development in the field of ICZM is **Green Book on Future Maritime Policy of the Union**, which was released in June 2006. Being a part of the Lisbon agenda, this Green Paper intends to stimulate growth and new jobs creation in coastal regions, and show new ways of increasing economic and social benefits from the marine activities. At the same time, this policy paper emphasises the necessity of an integrated approach to coastal zone management. The necessity of common standards in maritime spatial planning is put to discussion. Consultations of this document took one year, until June 2007, and in the next step, on the basis of the evaluated contributions, the second draft – “Blue Paper” will be prepared.

### 7.2 Regulatory Framework for ICZM in the Mediterranean Region

In 1960s the Mediterranean was given the reputation of the most polluted sea in the world. This was mainly due to pollution through domestic and industrial waste waters. As a reaction, in the beginning of 1970s, the countries of the Mediterranean sent a request to **UNEP (United Nations Environmental Programme)** for taking necessary measures and for the development of a programme that would protect the Mediterranean from further degradation. This is how the Mediterranean Action Plan (MAP) was established as a Program for Regional Seas, and in 1976 the Convention for the Protection of the Mediterranean Sea against Pollution was adopted in Barcelona (Barcelona Convention). The international co-operation aimed at environmental protection and land-use planning of the Adriatic region started in mid-1960s

through the environmental protection projects for the Southern and Upper Adriatic, implemented with the help of the UNDP. The MAP involves 21 countries bordering the Mediterranean Sea, as well as the European Union.

Adriatic physical plans (**Adriatic I, II and III**), developed by United Nations in 1970, were the key documents for coastal development planning. Those plans included:

- Physical plans of the development of the southern Adriatic region, which covered the coast between the Albanian border and Split (1969-1971 – Adriatic I)
- Co-ordination Physical Plan of the Upper Adriatic Region and its Hinterland, which covered the coast between Split and the Italian border (1971-1973 – Adriatic II)

Although in the preparation of plans there was the intention to protect and enhance the environment, the stress was primarily on the development component.

- Project Protection of the Human Environment in the Adriatic Region (Adriatic III), with the basic aim of harmonising to the maximum the development and protection needs.

The latter project was particularly important because it was perhaps the first response to the conclusions of the First World Conference on Environmental Protection held in Stockholm in 1972, and because it covered such a large area (entire eastern coast of the Adriatic with immediate hinterland). The project dealt with a variety of problems, regarding air, water, soils, public health, waste waters, solid waste, noise, sea, ecology, land, vegetation cover, historic heritage, and tourism. Assessment was made of growth limits using conceptual and mathematical models, and of the relations between the human activities and the various components of the environment. That project, in which 40-odd national scientific and professional institutions participated, as well as some 20 leading international experts engaged by UNDP, gave very precise recommendations which greatly contributed to the fact that the eastern Adriatic region, including the land, islands and the sea, is still one of the best preserved coastal areas of the European part of the Mediterranean.

After the Declaration on Sustainable Development adopted in Rio de Janeiro in 1992 and the **Agenda 21**, UNEP launched the second phase of MAP with which the protection measures against pollution were harmonised with the concept of sustainable development. In 1995, the Barcelona Convention was revised and expanded to coastal area, for which ICZM was now the official tool of establishing sustainable development in coastal areas. This Convention came into force in 2004.

The **Mediterranean Action Plan (MAP)** strives to protect the environment and to foster sustainable development in the Mediterranean basin. It recommends the implementation of the EU ICZM Recommendation. Its legal framework comprises the Barcelona Convention adopted in 1976 and revised in 1995, and six protocols covering specific aspects of environmental protection. Of the nine countries, some have been reported to be actively connected to the activities of the Mediterranean Action Plan. Croatia, for example, hosts the Priority Actions Programme Regional Activity Centre (PAP/RAC). The MAP activities positively support the ICZM activities in Mediterranean countries and should further be used to create synergies between national and regional ICZM initiatives.

In the meantime, the **guidelines for the ICZM process** with special focus on the Mediterranean basin were published in 1995 by the Regional Activities Centre for the Priority Action Programme (PAP/RAC) in Croatia. The White Paper on ICAM: Strategic Vision for ICAM and CAMP projects proposes recommendations for ICAM implementation at regional, national and local levels, emphasising that ICAM had to become a standard approach to solving the issues in coastal areas through integration of development and environment protection. Design of the CAMP projects by PAP/RAC helps identify and apply the methodology and mechanisms related to ICAM appropriate for the CAMP area.

The **Mediterranean Commission on Sustainable Development** recommendations: harmonised institutional, regulatory and programme framework point out the necessity for improvement of mechanisms for institutional co-operation, introducing or improving legal and regulatory tools on national and regional levels, access to information and public participation (especially in decision making), establishing incentive measures for development and adopting the ICAM approach, including pilot projects (e.g. CAMP) and development of public-private partnership.

The **Mediterranean Strategy for Sustainable Development** treats coastal areas as priorities with problems such as degradation of protected coastal areas, pollution from the land and sea, and intensive fishery. Also, in coastal area there are certain problems specific not only for coasts, such as: control of urban expanding, maintenance of quality in agriculture, better water resources management, etc.

The UNEP MAP **Protocol for the Integrated Coastal Zone Management in the Mediterranean** (signed in January 2008) represents a unique regional regulatory tool for the ICZM process. This protocol includes the principles of the ICZM, institutional measures, recommendations for new tools and measures regarding international collaboration. This protocol gives guidelines for: defining the coastal area, principles and elements of ICZM, co-ordination among institutions, protection and sustainable use of coastal area, preserving special coastal ecosystems, coastal erosion, cultural heritage, public participation, training, collaboration and scientific researches.

### 7.3 Regulatory Framework for ICZM in the Adriatic Region

In the year 1974, co-operation on the protection of the Adriatic was established in the form of a joint **Croatian-Italian-Slovenian Commission for the Protection of the Adriatic**. The Commission acts through various working groups: co-operation and joint activities in cases of accidental pollution of the Adriatic Sea; separate navigation system, i.e. establishment of navigation routes; monitoring of the state of the Adriatic and its protection. The Commission is also working on the **Adriatic Master Plan 2020**.

The Association Forum of Adriatic and Ionian Cities and Towns (**Adriatic Forum**) intends to:

- foster economic, social, cultural and scientific integration in the Adriatic and Ionian area, in order to facilitate the transboundary flows;
- create a common and overall image in and out of the Adriatic and Ionian area;
- play a leading role in the transboundary co-operation being a trans-national organisation.

Of particular importance are the activities on the implementation of the UN conventions: the Framework Convention on Climate Change, the Convention on Long-Range Transboundary Air Pollution and the related protocols, the Convention on Environmental Impact Assessment in a Transboundary Context, and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, as well as in the preparation of the Convention on the Access to Information, Public Participation in Decision-making processes, and Achieving Legal Protection in Environmental Issues. Co-operation has also been established with the Foundation for Environmental Education Europe (FEEE), and the Blue Flag programme for beaches and marinas (SDPNERC, 1998).

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