

# **CURRENT POLICY AND PRACTICE OF COASTAL AND MARINE PLANNING IN THE ADRIATIC REGION**

**Synthesis Report**

**DRAFT 10.09.2007**



**CURRENT POLICY AND PRACTICE OF COASTAL AND MARITIME PLANNING IN THE ADRIATIC REGION**

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## 0. Executive summary

### 1. Introduction

This report is meant as a synthesis of the reports on conducted by the Adriatic partners of the PlanCoast project: Italy, Slovenia, Croatia, Bosnia-Herzegovina, Montenegro and Albania with the aim to describe the current legal basis and practice of coastal and maritime spatial planning in these countries.

PlanCoast (2006-2008) is an INTERREG IIIB CADSES Project dealing with tool and capacities for an Integrated Coastal Zone Management in the Baltic, Adriatic and Black Sea regions.

Facing complex risks and conflicts in the sensitive coastal zones, as early as in 1972 in the U.S.A. the effort have been taken to elaborate a new concept of coastal zone management, which is known as Integrated Coastal Zone (Area) Management or ICZM<sup>1</sup>. Other countries including the European Union support the idea of ICZM officially since the 1992 World Summit in Rio de Janeiro, where in the *Sustainable Development Declaration*, also known as Agenda 21, the concept of ICZM was declared as 'The mechanism of problem resolution and securing the sustainable development in the coastal zones'.

According the European Commission definition, ICZM is not limited to 'management' only, but understood as a cyclic process of policy-making, covering the information collection, conflict resolution, management, decision-making and monitoring of the implementation.

The term 'integration' refers to:

- common goals and visions
- instruments needed to achieve these goals (hence the GIS as the favourable one)
- policy areas, disciplines, sectors
- parallel and vertical administration bodies
- terrestrial and marine components

Overall, integration is threefold: thematic, spatial and administrative<sup>2</sup>.

The genuine innovative character of ICZM is particularly visible in its holistic perception of the coastal zone, comprising of several terrestrial and marine zones. This report therefore along with the general consensus achieved within the PlanCoast project partners<sup>3</sup> strongly advocates to abolish the current functional dispartment between the two disciplines: Maritime Planning on the sea and and ICZM dealing with the land side of coast<sup>4</sup>.

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 economical, social and environmental land-sea interactions are indisputable. This implies the need of **extending the term 'coastal zone'** much further into the sea, possibly even as far as the EEZ. This is the definition of Integrated Coastal Zone Management, which has been applied in this report.

UNEP MAP Protocol for the Integrated Mediterranean Coastal Area Management defines ICZM as a 'dynamic process of sustainable management and use of coastal areas, and simultaneously the process that includes sensitivity of coastal ecosystems and landscapes, diversity in activities and in use of space, their inter-correlation, naval orientation for certain activities and their purposes as well as the impact on sea and land'.

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<sup>1</sup> Other frequently used terms are: Integrated Coastal Management (ICM), Integrated Coastal Area Management ICAM

<sup>2</sup> IKZM-ODER 2004, online

<sup>3</sup> PlanCoast Comment on the Green Book on Maritime Policy

<sup>4</sup> BMU 2006, 5, PLANCOAST 2006

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ICZM is currently an acknowledged and recommended management approach 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 project attempts to fill this gap. The gathering of the relevant national information in spring 2007 in order to make an assessment of the various uses and possible resulting problems in the coastal areas was the first step, finalised by this synthesis report. As a next step, solutions will then be sought between the different interests at stake in newly designed integrated coastal and maritime spatial plans.

To capitalize the experience of these pilot projects the PlanCoast Transnational Handbook will be prepared, which shall give guidance to staff in regional and local authorities in coastal areas on how an integrated spatial planning can be implemented.

The following synthesis report on Adriatic Region subcontracted by Regional Activity Centre of the Priority Actions Programme (RAC/PAP) Croatia is designed as a report to the EU. At the same time, essential parts of it will be used in the PlanCoast Handbook and the full version will be attached to it as an appendix.

### 1.1 Short description of the Adriatic region

The Adriatic Sea is the part of 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. In the widest spot 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 northwest merging into the marshes and lagoons on both sides of the protruding Po river delta.

Further north the landscape gets rockier and more steepy. The karst (Slovene *kras*, Croatian *krs*, Italian *cars*) meaning a stony, unfertile area, occupies a considerable portion of 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 larger and flatter islands like Brač or Krk.

On the eastern mainland, notably 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 Montenegró country.

The Albanian coastal zone is characterized 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.



Vlora coastline 'Triporti'.

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The climat is characterised through very warm, dry summers and mild, humid winters. The bora (northeast wind) dangers 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 on the Adriatic coast include Brindici, 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.

The geo-political constalation of the Adriatic region is extremely heterogene, with the founding memeber of the European Union Italy on one hand, and on the other hand 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 length of coast the countries vary greatly.



**Republic of Slovenia**  
**EU accession: 2004**  
**Independence: 1991**

Capital: **Ljubljana**

Area: **20 273 km<sup>2</sup>**

Population: **2 mln (mean density 251 persons/km<sup>2</sup>)**

DP per capita: **\$25 266**

Coastline length: **46,6 km**

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**Republic of Italy**  
**EU accession: 1957**

Adriatic coastal regions: **Friuli-Venezia Giulia (capital Trieste), Veneto (Venice), Emilia-Romagna (Bologna) and Marche(Ancona), Abruzzo (L'Aquila) and Apulia (Bari)**

Area: **301 318 km<sup>2</sup>**

Population: **59 mln (mean density 196 persons/km<sup>2</sup>)**

DP per capita: **\$31 200**

Coastline length: **7 600 km**

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**Republic of Bosnia Herzegovina**  
**Independence: 1992**

Capital: **Sarajevo**

Area: **51 197 km<sup>2</sup>**

Population: **4 mln (mean density 76 persons/km<sup>2</sup>)**

DP per capita: **\$9 168**

Coastline length: **26 km**

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**Republic of Croatia**  
**Independence: 1991**

Capital: **Zagreb**

Area: **56 610 km<sup>2</sup>**

Population: **4,7 mln (mean density 81 persons/km<sup>2</sup>)**

DP per capita: **\$15 355**

Coastline length: **5 835 km (mainland: 1 777km, islands: 4 058 km)**

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**Independence: 2006**  
**Capital: Podgorica**  
**Area: 13 812 km<sup>2</sup>**  
**Population: 0,68 mln (mean density 47 persons/km<sup>2</sup>)**  
**DP per capita: \$3 800**  
**Coastline length: 300 km**

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**Republic of Albania**  
**Independence: 1916**  
**Capital: Tirane**  
**Area: 28 748 km<sup>2</sup>**  
**Population: 3,6 mln (mean density 134 persons/km<sup>2</sup>)**  
**DP per capita: \$6 259**  
**Coastline length: 420 km**

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## 2. Major coastal issues in the Adriatic Region

### 2.1 Italy

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

Urbanisation

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.

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 heavily degradation state. Many animal and vegetable species associated to them are now listed on red lists.

Biodiversity loss

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 shell fish species of marketing interest. A relevant percentage of catch of these species come from these areas, where also half of fishing jobs are located.

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

In recent years also the coastal water quality deteriorated significantly, two main reasons being oil

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spillage from shipping accidents and algal proliferation resulting from the agriculture and aquaculture immissions.

Since the mid 70s, marine aquaculture in Italy has developed considerably now accounting for 18% of total aquaculture production in the European Union. Mussel farming produces 100,000 tons, mollusc farming 48,000 tons, while fish production grows steady, 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.

Aquaculture

Mariculture is a branch of aquaculture allowing to grow fish in their own natural environment using large metal cages. It presents a good alternative to traditional fish farming in concrete tanks or ponds. Production and investments costs in mariculture are lower in comparison with land-based fish farming, also considering that the straight use of the sea guarantees a better quality of water, significant reduction in fish disease and thus lower environmental impact. Nevertheless, submerged farming systems present some management problems too, in particular concerning the localization for placing the cages in deep sea, and the difficulty in visual controlling of fish behaviour from the surface, especially during the nourishing phases.

### 2.2 Slovenia

The Slovenian extremely short coastal region of 46,6 km length is a centre of a dense urban network with the Koper-Izola-Piran conurbation. The pressure on the narrow coastal belt is enormous.

The demand for real estate is strengthening, particularly in Slovenian Istra, 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 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-urbanized.

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 regions. It is mainly developed in the municipalities of the Slovenian Istria (particularly in the Municipality of Piran) and, to less 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 sport 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 Istrian hinterlands, Kras and Brkini municipalities.

Natural conditions on the Slovenian coast favor the development of nautical tourism and the construction of modern tourist harbours - marinas. The Marina Portorož was awarded the European eco-label - the Blue Flag - already in 1995, and The Marina Izola in 2000. The problems of nautical tourism and marinas arise mainly due to spatial conflicts with other uses, as the competition for the coastal land overcrowding at the sea is strong.

Urbanisation

Tourism

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### *Maritime transport*

Thanks to its port, 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 in the region, is currently being established in Koper.

Maritime Transport

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. Environmental pollution problems (e.g. air pollution from the dumping areas of dry bulk cargo) cannot also be neglected.

Slovenian maritime fishing zone 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 and several protected maritime areas. This, together with the obvious depletion of fishery resources in the Northern Adriatic resulted in a drop in the sea fishing quantity and quality.

Fishery and aquaculture

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 were established for the protection of fishing resources and aquaculture: Portorož fishery reserve comprising the inner part of the Piran Bay and the saltpans, and Strunjan fishery reserve comprising the coastal sea at the Strunjan Cape, the inner part of the Strunjan Bay, the lagoon and saltpans.

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 defined 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 inner migration.

Implementation of wastewater treatment especially in the Kras region is very cost demanding due to expensive excavations in limestone and unfavourable terrain configuration (no constant declines), which dictates a larger number of pumping stations and small treatment plants.

Due to natural features of Kras and Slovenian Istra, the sources of drinking water are relatively scarce. The existing water resources in the Kras area are exposed to pollution because of the karst characteristics and are not safe for drinking.

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

Fresh water management

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. However, in some protected areas the management has not been regulated (Strunjan Landscape Park, Debeli Rtič, Madona Cape), there is inefficient safeguarding regime, unsatisfactory financing and missing infrastructure.

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

Nature and landscape

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The outstanding natural and cultural landscapes also change as a result of the large infrastructure facilities (motorways, marinas, harbours) and increasing settlement density in the coastal area - tourist settlements and dispersed building of housing and holiday facilities and auxiliary facilities.

Large extent of prefabricated architecture for catering and tourist facilities, unregulated and unplanned trailer storage areas, service facilities in marinas, unregulated parking lots, neglected parts of bathing sites and unarranged footpaths to the sea degrade the image of the coast. This spatial disorder is on the one hand the consequence of unregulated real estate ownership and, the inconsistency of economic, social, cultural and environmental aspects of spatial development on the other hand.

### 2.3 Croatia

Croatia has a very long coastline on the Adriatic Sea. More than 1,000 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, which is, obviously, much harder to control than the previous illegal urbanisation patterns. A situation that is currently still under control could easily turn into an unsustainable development pattern, characterised by a linear coastal urbanization.

Currently, one of the 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 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, Dubrovnik, while in most areas on the southern coast more or less uncontrolled tourism growth patterns prevail. As a result, there is a rationally high space consumption, increased pollution, low quality and sustainability of the objects.

The country's very long and scattered coastline provides good natural conditions for fishery, 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 typical for Mediterranean over-fishing.

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

Biological and landscape diversity is in the Croatian coastal areas still very high. 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

Urbanisation

Tourism

Fishery and aquaculture

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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.

The Croatian agriculture, in general, has been almost abandoned 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.

Agriculture

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

Croatian characteristic coastal pine forests are nowadays highly threatened by industry, urban development, transport, 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 great threats to the forests along the coastline, 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 inadequate disposal of solid waste in porous karstic terrain which could contaminate ground water. Inhabitants and urban areas are the major source of the organic substances loads in the eastern part of the Adriatic Sea.

Pollution

In general, the state of the Croatian coastal sea can be deemed comparatively well. 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 and Herzegovina

Formerly a constituent republic of Yugoslavia, Bosnia and Herzegovina declared its independence in March 1992. War then broke out among Bosniaks (Bosnian Muslims), Croats, and Serbs in the country (see Wars of Yugoslav Succession). At the end of the war, in 1995, Serbs controlled 49 percent of the country's territory, comprising an area known as the Serb Republic (*Republika Srpska*). The remaining territory, officially known as the Federation of Bosnia and Herzegovina (*Federacija Bosna i Hercegovina*), was controlled by a federation of Bosniaks and Croats. Today, the Bosniak-Croat federation and the Serb Republic together constitute the country of Bosnia and Herzegovina. In reality, since the war the country has remained divided three ways—among the Bosniaks, Croats, and Serbs—despite international attempts to unite it.

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### 2.5 Montenegro

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

Urbanisation

The main problem is the lack of space for the new development. Extreme concentration on 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 city zones and suburban settlements. The intensive urbanisation process and population concentration in this zone causes versatile conflicts. On one hand there is an acknowledged need to preserve the natural beauty of this area, and on the other hand, the pressure to privatise a part of the coast and ambitions to use the space for communal services in overpopulated settlements in hinterland.

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, montaneous virgin nature and the relatively unpolluted land and sea classify the area of Coastal Zone of Montenegro into the touristically most attractive regions of the Mediterranean.

Not so long ago, geo-strategic position resulted in big number of military complexes, ports and fortifications along the coast and in its immediate hinterland. Today they are transformed into tourist locations and resorts. The beginning of the tourism development dates to the 1960's of the last century. The biggest infrastructure project at that time was construction of the highway along the coast in 1964. Besides the increase of living standards, 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.

Tourism

There is a long and rich naval tradition especially in Boka with Kotor and Perast. Along the coastal line, together with already existing ports, harbours, and individual small moorings there are new requirements for the berth of coastal navigation ships and yachts, which are again in conflict with the needs of tourists and for beaches and for bathing. In the aquatorium especially in the summer season the yacht traffic is considerable.

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

Infrastructure

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

First industrial activity was related to naval industry e.g. graving docks. In the period after the II World War intensive construction of industrial facilities started in coastal area, mainly in Kotor and its surroundings, while at the remaining part of the coastal area only few plants for medicine and food processing were built. A milestone in ecological space reorganisation was done in the 1980s, by replacing this industrial complex from Kotor and the protected part of Boka.

Considering ecological sensitivity and the narrow space especially in the Boka Bay, industrial activities created problems such as danger from pollution, over crammed space and degradation of

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landscape etc. 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

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 at right angles to the shore. The national road running parallel to the coastline has recently been upgraded and new segments are being constructed.

Urbanisation

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

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 salinization 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 jeopardizing fish breeding ecosystems.

Agriculture

The unique Albanian wetlands landscape with many lagoons and versatile dune structures stretches between Shkodra and the Vlora resort. However, these sensible natural areas are highly threatened. 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.

Biodiversity loss

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

Fisheries, particularly commercial fisheries, are underdeveloped. Officially, this sector employs about 3000 fishermen and other workers. The fleet is old fashioned; 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 per cent 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 Ministry of EFWA 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, the insufficient level of service for boats.

Fishery

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.

Erosion

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### 3.6 Summary: major coastal issues in the Adriatic Sea Region

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

Tab.1 Major issues in the terrestrial zones of Adriatic

	Italy	Slovenia	Croatia	BiH	Montenegro	Albania
Urbanisation /Littoralisation	++	+++	+++		+++	+
Tourism	+	+	+++		++	
Infrastructure	+	++	+		+++	++
Fresh water management		+++	+		+	+
Agriculture	+		+			++
Nature protection	+++	+	+++		+	+++
Landscape	+	++	+++		+++	
Erosion	+					+++
Earthquakes						+

While in the past, degradation of the coast was caused by land reclamation, agriculture, mining and industrial pollution, the present threats come from urbanization, intensive resource exploitation and tourism. The common to all Adriatic countries problem related to the terrestrial part of the coast is the widespread urbanisation of the coastal belt - 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 2004) the very attractive Croatia and Montenegro, but also starting in Bosnia and Albania.

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 land-owners are attracted by high land prices to convert their land from low intensity use into 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 as well as water and sewage 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 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.

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 Bosnia abandoned the farming ground in favour for 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.

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Nature and landscape protection is a big issue in all Adriatic countries. Particularly Italy, Croatia and Albania due to their long and ecologically valuable 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 carst habitats and the related fresh water problems. Montenegro is in turn very much concerned about the picturesque landscape qualities of the listed on UNESCO world heritage list 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 in a disastrous dimension like the earthquake on Montenegrin coast in 1979.

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

Tab.2 Major issues in the aquatic zones of Adriatic

	Italy	Slovenia	Croatia	BiH	Montenegro	Albania
Nautical tourism	+	+	++		+++	+
Maritime Transport		+++	+		+	+
Fishery		+	++			++
Aquaculture	++	++	++		+	+
Water quality	+++	+	+		+	+++
Energy generation	+++	+++	+++			+

Shipping 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 in Central Europe, such as particularly in the north of the Adriatic coast (the ports of 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 are 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 to 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 are 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 little exchange with outside Mediterranean, the low quality of surface and underground water affects directly the marine water quality, with adverse consequences for both water based tourism and marine ecosystems

Fishery is traditionally an important sector in the Adriatic countries, however it is constantly dropping its share in the national economies together with the global shrinking of fishing resources. The new trend can be observed to aquaculture, especially in Croatia and Slovenia, which however is not entirely free of environmental and other constrains.

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

### **3. Definitions, terms and concepts in the Adriatic countries**

this chapter is under preparation by Kira Gee

#### *Italy*

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

#### *Slovenia*

Marine waterside land is the land that directly borders marine water land and extends 25 m from the boundaries of the water land. Encroachments on waterside land is not permitted except for the construction of public infrastructure facilities, construction of facilities for artificial public assets, measures for the improvement of hydrologic and biologic characteristics of surface waters, construction of facilities required for the use of water, safe navigation and protection against drowning in natural bathing areas, and some other purposes. Owners of other proprietors of waterside land must permit harmless passage across their land to a water or marine asset. The use of waterside land is directly connected with general use (presence on waterside land and the placement on the ground of items for bathing, diving, skating, navigation and the like) is permitted if such use does not cause any damage to the owner or other proprietor of the waterside land. If general 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.<sup>5</sup>

#### *Croatia*

#### *Bosnia and Herzegovina*

#### *Montenegro*

In the Montenegrin land policy there is no specified difference between coastal area and other parts of the state. However, the currently adopted National ICZM Strategy will for the first time formally define the coastal area. It should 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 coast.

A particular zone within the Montenegrin coast has traditionally been maritime public domain for general and special public purposes. By law the maritime public domain is the space comprising: 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 surrounding continental zone, as well as the part of land that by its nature serves the purpose of using the sea for marine transport and sea fishery and for other purposes in relation to the sea. On the land the border of the maritime domain is defined as an at least 6 metres wide stripe.

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<sup>5</sup> Slovenia 33

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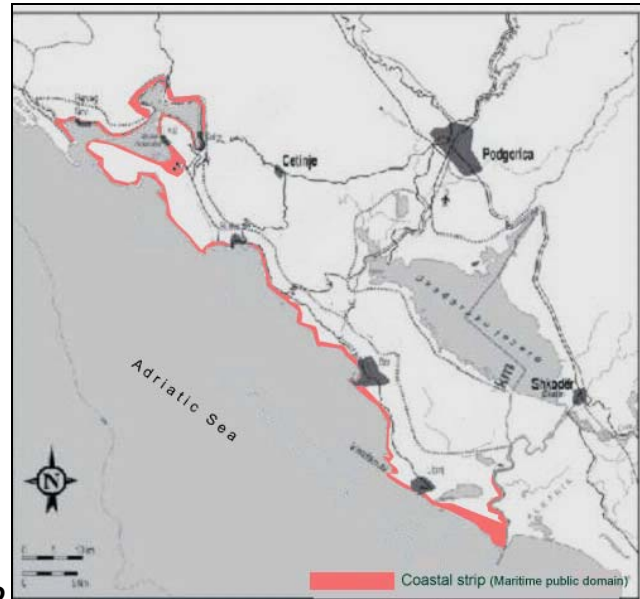


Fig. X Coastal public domain in Montenegro

Definition of coastal zone	Italy	Slovenia	Croatia	Bosnia	Montenegro	Albania
On shore	300m	The region South Primorska	1000m (70m is public domain)	█	6m	█
Offshore	█	█	300m	█	Entire 12smz	█
Remarks	Defined, but no rules	Only informally	proposed	█	Public domain, rules strictly executed by the JP Morsko Dobro	█

### 4. Legal framework for ICZM and MSP

#### 4.1 Italian spatial planning system

##### *On-shore planning in Italy*

Italy is since 1972 a federal state 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 a national level through the

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*Urban Planning Law* nr. 1150/1942, although the regions were given the necessary competences to legislate in this matter.

According to the Emilia Romagna Regional Law n. 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 Coordination 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 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 issue in planning and in programmes was still premature at national level, the principles introduced at 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 has to comply to territorial cognitive processes and environmental sustainability assessment called VALSAT (see page XX), be self -approved, in compliance with the above-level plans and developed in a negotiative, participative way.

### *Off-shore planning in Italy*

Since the 70's, the density of population and human activities on the Italian coast has drawn general attention on the need to arrange suitable state legislation instruments on the subject, as there is profound awareness about 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 1999, almost two decades later, the National Ministry of Environment started to prepare the *National Plan*, it has not, however, been completed until now.

In the meanwhile, 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 optimal 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. Some regions like Liguria, Marche, Tuscany and Emilia-Romagna have seized this opportunity.

The Emilia-Romagna Coastal Plan examines the present conditions on their coasts in order to protect and enhance the coastal landscape, natural and environmental value, whether on-shore or off-shore. All this has been realized on the base of the strong awareness that the overall coastal system governance required a methodological approach, instead of the spontaneous measures applied in previous times. In fact, the Coastal Plan involves several sectors: coastal protection, beach nourishment, marinas, coastal traffic issues, recovery and re-organisation of urbanized tracts and development of public and tourist facilities in the costal area.

Currently, there is no Marine Spatial Planning in Italy. The main planning instrument are the protected marine areas. *Law on Marine Protected Areas* of 1991 identifies and defines the activities to be banned in marine protected areas, i.e. all the ones that could jeopardize the safeguard of the environmental characteristics and purposes on which the protection measures are based.

Protected sea area management is entrusted to public bodies, scientific institutions or recognised environmental associations, also cooperating with each other. At present, most marine protected areas are directly managed by the communes in charge for the territory where the areas are.

In relation to the coastal land areas, in 1985 a 300m wide coastal stripe has be legally defined as natural heritage. In this stripe, buildings are allowed in urban areas according to the current

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planning tools and prior specific permit granted by Superintendence. However, beyond the identification of this 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 Slovenian spatial planning system

#### *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 were two new *Spatial Planning Acts*, which, however, have not yet become fully operational in practice, as a series of implementing regulations have still 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 cooperation 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 abovementioned act, the proposer of the regional development programme is a special common municipal body (composed of the mayors of participating municipalities), it is difficult to say that it is plan of a region. It is 'regional' only by name, as it has to be adopted by all participating municipalities or a municipal association in identical wording by a decree, as otherwise it cannot become effective.

Spatial planning of coastal zones is therefore focused on the municipal level. There are three coastal municipalities: Koper, Isola 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 CAMP Slovenia Project (see p.XX)

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 14th Meeting of the 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).

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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 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 Conception 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 given to public participation and promotion of the project to the public.

### *Off-shore planning 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, however it 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 maritime spatial planning 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 seventies 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 here 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 of water 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 Maritime Code: regulates the sovereignty, jurisdiction and control of the Republic of Slovenia over the sea, navigational safety in territorial waters and inland maritime waters, protection of the sea against pollution from vessels and legal regime of ports: it regulates obligational relations relating to vessels, vessel registration, limitation of shipowner's 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. The spatial impact of uses triggering initiatives for their systematic harmonisation within the

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framework of maritime spatial planning is therefore very limited. Here we refer mainly to energy generation: wind and mineral resources. The need for maritime planning was expressed most explicitly in the case of gas terminal projects in the Gulf of Trieste. The project started without preparation of variant solutions and the strategic environmental impact assessment, as well as without the trilateral coordination between Slovenia, Croatia and Italy as well as with other users. This resulted in a wave of indignation and opposition to the project.

### 4.3 Croatian spatial planning system

#### *On-shore planning in Croatia*

The most important laws for protection of the coastal land areas are the *Spatial Planning Law* and the *Nature Protection Law*. Neither of the does, however, define separate coastal zone planning and management, although it is implicit that coastal protection considerations should be integrated into regional, municipal and local planning. Unfortunately, the recent practice in fulfilling even this meagre requirement is not encouraging.

The 1994 *Spatial Planning Law* prescribed 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) has been proclaimed including the coastal belt of 1000m on mainland, all islands and 300m maritime belt (*Spatial Planning Law 2004*).
- Restrictive conditions for building and land extension within the PCA in new local spatial plans
- Any construction of residential or tourist buildings within PCA can take place only after adoption of regulatory development plan approved by the County Planning Institute, State Development Control Office and 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 70m coastal belt. Within this 70m 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 with numerous difficulties.

Despite numerous strategic documents 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 with islands - *Island Development Act (1999)* cannot be enforced due to the shortage of funds.

#### *Off-shore planning 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 being convinced of its exclusive responsible for coastal development. Lack of coordination and communication among them, which is a common case even within departments of the same ministry, is a huge problem.

However, the early activities in managing Croatian coastal area were relatively encouraging. In the 70'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

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in Croatian coastal area management. However, although the personnel have 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 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 the 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 a leading role.

In Croatia, there is no marine spatial planning per se. Instead, marine activities are coordinated by different ministries and institutions and regulated by different legislative regulations. *Maritime Code* of 2004 is the key document related to marine affairs - mainly transport. Another important regulation is *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 *Law on Marine Fishery* of 1994. In addition, there are number of documents and strategies that define marine transport, fishery and tourism. The most important one is *Strategy of Croatian Tourism Development 2010* (2003).

### 4.4 Bosnian spatial planning system

#### *On-shore planning in Bosnia Herzegovina*

#### *Off-shore planning in Bosnia Herzegovina*

### 4.5 Montenegrin spatial planning system

#### *On-shore planning in Montenegro*

Montenegro, along with Croatia, Slovenia and Bosnia-Herzegovina was until early 90's part of the socialist Yugoslav Federation. Although the centralistic planning system is one of the basic characteristics of socialism, the specific feature of Yugoslav socialism was self-governance. Self-governance included maximum involvement of planning subjects in 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 social-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 were the basis for physical development policy management and regulatory ones for carrying out the administrative procedure.

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In 1992 the shift from socialism to capitalism was marked with the abolition of *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) were left open and the legally binding character of spatial plans was replaced with vague declarations.

On the other hand general economic crisis and the war in the region derogated planning activities. Administration chaos resulted in numerous unplanned and illegal spatial interventions.

Physical planning and development system in 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. State planning documents are as follows: 1) spatial plan of the Republic; 2) spatial plan of a special purpose area; 3) detailed spatial plan; 4) study of a location. There is no regional level in Montenegro.

### *Montenegro National ICZM Strategy*

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

In the Montenegrin land policy there is no specified difference between coastal area and other parts of the state. However, the currently adopted National ICZM Strategy will for the first time formally define the coastal area. It should 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 coast.

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* from 1992 Public Enterprise for Coastal Zone management (JP Morsko Dobro) is the owner of this space while executive function in terms of adopting the plans, issuing licences and approvals, inspection etc. is under competencies of local and state bodies. The income generated from renting of 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 Coastal Zone, the beaches were considered to be public spaces for general use but no one had clear obligation to maintain them. In 1992 new active approach to the beach management was attained, by renting of the beach areas according to the specific agreements and contracts, while the rent funds were directly applied to their maintenance. The free access of citizens and tourist to state-owned bathing areas is guaranteed by law.

### *Off-shore planning in Montenegro*

Together with the narrow coastal stripe of six metres, the entire Montenegrin sea area is managed by the mentioned Public Enterprise for Coastal Zone Management.

An interesting from the point of view of this report feature of the Montenegrin planning system is the obligation of making and adopting spatial plan for the maritime public domain. However, with the exception for ports and harbours, such planning documents have almost no influence (?) on the decision-making in the aquatorium. This means that the marine activities are subject to various separate sector programmes and decrees. For instance:

- Navigation routes and the regime of coastal navigation are under competencies of port authorities and the Ministry of Maritime and Transportation, and is regulated in the *Law on Coastal Navigation*.
- Fishery is determined within the *Law on Marine Fishery*

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

### 4.6 Albanian spatial planning system

#### *On-shore planning in Albania*

Territorial planning authority in Albania resides at the national and local levels. National territorial planning authority resides in the central government which (under the current legislation) is with 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 organ at the national level that prepares urban studies and projects determined by the Urban Planning Regulation. This institute is under the Ministry of Public Works and Transport.

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

There are two major problems about the Albanian physical planning:

- the preparation of spatial plans is too 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.

This situation has led to illegal construction and to the inadequate provision of infrastructure, particularly where tourism development is planned.

The lack of physical plans is considered to be one of the major obstacles to sustainable coastal development.

There is currently no separate law nor institutional responsibility for coastal planning in Romania. In practice, the institutional structure for coastal zone management relies on the capacities of two ministries: the Ministry of Environment, Forestry and Water Administration, the Ministry of Public Affairs, Transport and Telecommunications. Ministry of Tourism, Culture, Youth and Sports does contribute to the tourism development aspect for that area. Another important player is the inter-ministerial Council for Territorial Development.

In the last decade, Albania faced a series of international and national projects on ICZM relevant themes:

- 1994-1995 the World Bank financed preparation of the ICZM plans for the Albania 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
- 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
- 2002 the prepared with the help of GTZ *National Strategy on Tourism* made clear reference to the great potential of Albanian coast for a sustainable tourist development. Strategic

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Environmental Assessment is here identified as a required measure. Recently, the UNDP funded and developed in cooperation with the Ministry of Tourism the *Cultural Tourism and Ecotourism Strategy* as a component of the former one.

### *Albanian ICZM and Clean-Up Program*

The currently running 7 years World Bank project “The Integrated Coastal Zone Management and Clean-Up Program” has the main objective to protect the Albanian coastal ecosystems, resources and cultural assets and promote 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 preserve cultural heritage in southern coastal villages; support priority regional infrastructure investments in southern coast and addressing the needs to reduce health risk in Porto Romano and protect Butrint National Park.

Phase 2 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 coastline and marine ecosystems; promoting nautical tourism development and promote 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.

### *Off-shore planning in Albania*

There is no experience nor specific regulations on on-shore planning in Albania.

	Italy	Slovenia	Croatia	Bosnia-Herzegovina	Montenegro	Albania
<b>RESPONSIBLE MINISTRY FOR COASTAL PLANNING</b>			7-8 Different Ministries			1. Ministry of Environment, Forestry and Water Administration,  2. <b>MINISTRY OF PUBLIC AFFAIRS, TRANSPORT AND TELECOMMUNICATION</b>
Planning level	State Region	State Inter-local	State Local		State Local	State Local

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responsible for coastal planning	Local	Local				
Basis for ICZM	Regional Coastal Plan	Conception of Spatial Development of South Primorska	Governmental Regulation on Development and Protection of Coastal Protected Area		Law on Maritime Domain, National ICZM Strategy	
<b>MARTIME PLANNING</b>	no	No obligation. Optional for state authorities	No, marine activities coordinated by different actors		Yes, obligatory, but not influential on decision making except for ports.	no

### 5. Practice of MSP (Integrated Coastal and Marine SP)

#### 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 cooperation in spatial planning complies with the high standards of Integrated Management.

The necessity of close co-operation of administrative units of different levels and sectors as described by the definition on page 11 of this thesis is an aspect of key importance for ICZM, in HYDER 1999 defined as follows:

‘Co-operation: the involvement and collaboration of the administrative partners at different levels of government and in different sectoral branches of the administrations. One of the objectives of co-operation is co-ordination of policy.’<sup>6</sup>

The first condition 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>7</sup>

Successful communication means far more than a formal exchange of formalities. This is why, experts are united in the opinion, that formalised authority cooperation is not enough for successful ICZM. ICZM depends to great extent on the voluntary measures. Communication and co-operation belong to them. It requires first-class 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 precondition here to 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.

<sup>6</sup> HYDER 1999, 9

<sup>7</sup> HYDER 1999, 33

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

1. Spatial planning stakeholders are informed about the planning start and asked for guidelines within their competences
2. On this basis a draft is made by the responsible planning authority
3. The draft plan is put on public exhibition, 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 this or similar to this procedure, plans and programs are harmonised on local, regional and sometimes even national level (Slovenia).

The Italian region Emilia Romagna has recently introduced innovative tools with an aim to unify and raise the quality of the system throughout simplification and informal tools (negotiative approach) in cooperation between 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 Coordination Plan is preceded by a Planning Conference whose members discuss and organize the analytical-cognitive apparatus, along with the objectives of the Plan. The instrument of public debate appears to be a good opportunity for the stakeholders to get in a personal contact with each other.

A certain level of vertical integration among competent authorities at all administrative levels in spatial planning is achieved in Croatia. The plans at various administrative levels have to be coordinated and that there should not be a conflict 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 marine) 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.

Montenegrin Spatial plans indeed 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 competences.

Lack of coordination and synergies among different responsible authorities is accounted on as a serious gap also in the Albanian ICZM legal frame. It is particularly visible it is in terms of the integration of sea and land use approaches.

The question of whether the authority co-operation in spatial planning of the Adriatic Countries (except maybe Italy) is pursuing a partnership approach cannot be answered easily. The law seems to be correct in this sight. 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 sight should be provided by legal (example Emilia-Romagna) and advisory bodies.

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### 5.2 Horizontal cooperation (land-sea integration).

Intersectoral integration is the integration of goals and measures between e.g., the Ministry of Public Works, the Ministry of spatial planning and the Ministry of Tourism. This is also called "horizontal integration". A specific type is called integration in space, as the land and sea side of the coastal zone are traditionally governed by different sectors (e.g. tourism vs. fishery), but activities at either side influence the other (coastlearn 2007).

In the concept of ICZM links between those public institutions (ministries, research institutes, departments) must be created or strengthened. Following the recommendation of BaltCoast, the creation of new institutions should be avoided -the effectivity of the existing ones should be enhanced instead. (BaltCoast 2005)

On the land side of the coast, sectoral integration is in some cases (Italy, Croatia, Slovenia) covered through the statutory spatial planning system (read more in Chapter 5.1). On the sea however, there are no comparable coordination instruments. This is one of arguments for the necessity of Marine Spatial Planning.

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

An interesting example of horizontal harmonisation between land and sea sectors can be observed in Slovenia on the basis of EU Water Framework Directive. In case of the *Detailed Water Management Plan* coordination 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 organizations). The Water Council monitors the implementation of the national water management programme, participates in the preparation, monitoring and implementation of water management plans.

In Croatia 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 these related to the ICZM institutions, this co-operation is formalised and thus not working properly in terms of the weighting of the different sectors' views and interests

### 5.3 Citizen involvement

This chapter has been deliberately called 'citizen involvement', as it is a generic term containing the multiplicity of terms such as e.g. 'public participation', 'public consultation', 'citizen consultation' etc. As these terms are being widely confused, this chapter's aim is to draw a line between them by showing the practice of spatial planning in the Adriatic region countries.

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. 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>8</sup>

<sup>8</sup> EC 2002, Chapter 2 f)

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OECD 2001 Handbook on public participation defines three essential terms:

- 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 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>9</sup>

HYDER 1998 too, in their evaluation of the *ICZM Demonstration Programme* describe consultation as set of minimum statutory requirements for information exchange. They make thus a clear statement of superiority of public participation for the means of ICZM, which he regards as the upgraded, most ambitious and interactive possible form of public involvement.<sup>10</sup>

Several aspects of citizen involvement are subject to statutory requirements worldwide. 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>11</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's draft and thereafter, similar to the procedure of institutional coordination (see the above description).

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 the 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'.

Public participation in decision-making is generally well founded in the planning tradition of the formerly socialist countries Slovenia, Croatia, Montenegro, Bosnia Herzegovina and Albania. This advantageous legal system failed in practice due to the bureaucratic inefficacy of the socialist system and because of the then ubiquitous state ownership. Nowadays, in the condition of market economy these traditions of civil society are becoming a rare virtue.

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 on both national and municipal level 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.

In Croatia public participation has formally been introduced into the *Spatial Planning Law* in 1980. In 1998 more in 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.

Currently, in all countries of the Adriatic region with exception of **XX** the legal regulations of citizen involvement are correct and internationally up-to-date. In reality 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 shows no commitment above the statutory requirements.

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<sup>9</sup> OECD 2001, 12

<sup>10</sup> HYDER 1999, 4

<sup>11</sup> HYDER 1999, 113

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This is why it has to be concluded that the citizen involvement practiced in the Adriatic region cannot be referred to as real participation, but, at the most, 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 we are dealing in practice with the legal minimum, which is however not sufficient in fulfilling the goals of integrated management.

### 5.4 Bioersivity protection

A relevant role in the Italian marine activity is played by the marine protection areas, which aim to protect in an integrated way sea and coast tracts (often whole islands or archipelagos) with outstanding environmental and landscape quality. At present, there are in 24 marine protected areas totally protecting about 184.000 hectares of sea and about 580 kilometers of coast.

Protected sea area management is entrusted to public bodies, scientific institutions or recognised environmental associations also cooperating with one-another. At present, most protected sea areas are directly managed by the communes in charge for the territory where the areas are. However, besides the sheer designation of protection areas, the carrying out of their management plans seems to be more problematic.

There are eight MPA's in the Croatian part of Adriatic. These can be divided into under two main categories:

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

The Lošinj Dolphin Reserve is the first MPA dedicated specifically for 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 Lizip's Apoksymenos, was discovered. With 526 qm it is the biggest marine protected area in the entire Adriatic.

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 designated as a PSSA, and the whole Adriatic sea is one of them (read more in chapter 5.7 PPSA)

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.

#### *Adriatic PSSA*

The Adriatic Sea has an accident frequency more than five times as high as the world average. Regarding the number of ship accidents in the Adriatic Sea over the past 15-years period, a total of 174 accidents have occurred. There are over 200 oils spill a year. However, a relatively small number of accidents actually caused any significant pollution. Important cause of pollution, especially in enclosed and semi-enclosed seas such as the Adriatic Sea, are regular, routine daily ship operations. As to vessel-source pollution of the sea by oil, the illegal operational discharges from large ships are still frequent in the Adriatic Sea.

The idea of proclaiming the Adriatic Sea a Particularly Sensitive Sea Area (PSSA) is not new; it was first mentioned in expert literature, advocated by environmental NGOs, recently also by some

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politicians and media alike, and eventually stated in several regional policy documents. Notably, within the framework of the Mediterranean Action Plan, a sub-regional contingency plan for major marine pollution incidents in the Adriatic Sea was adopted by Croatia, Italy and Slovenia in November 2005. In that contingency plan, the three countries envisaged to “collaborate in designating PSSAs in the area covered by the Plan” and jointly propose these to the IMO, along with Associated Protective Measures. Joint proposal on Adriatic PSSA would be submitted to the IMO in 2007.

Designation of a PSSA in the Adriatic Sea can provide a significant regional cooperative 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, due to increased public awareness of the need for marine environmental protection

### 5.5 Impact Assessments

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 level, 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 to check 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 condition of TIA is the existence of alternative options of route /location, as the goal is to optimize the project and not to merely assess it.

The whole ‘family’ of impact assessments was the first political attempt to coordinate the interests of different sectors with an overall aim of environment protection (EIA), then gradually expended 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.

The Emilia Romagna Region has developed a procedure very similar to the SEA, called VALSAT, the acronym for the Italian “environmental and territorial sustainability assessment”, which is applied in spatial planning. VALSAT has to demonstrate that the plan implementation causes a territorial conditions improvement or at least no negative impact. It save guards the transparency and the political and economic viability of the planning processes.

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

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

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In Montenegro environmental measures were obligatory part of all spatial plans since 1979. The procedure that included public in decision making on a maximum level and comprised almost everything what is defined as the obligatory content of SEA and EIA today. Current laws, apart from obligatory environment protection component and protection of historical monuments in the plans, require making EIA for all the facilities that can cause jeopardising of 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 by far cannot substitute to 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 practiced a.o. 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 therefore its integration in the statutory planning and management processes. This is not necessary in the case of SEA, which ex definition contains extensive participation and stocktaking processes and thus can be regarded as a sovereign procedure.

A thoroughly conducted EIA such as the Italian or Slovene practice can be a good basis for ICZM. SEA can do it even in 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 monitoring

Important questions in the ICZM and MSP debate are:

- Which data is needed?
- How is it available?
- How should it be processed in order to extract maximum decision-aiding information?

First question can be answered easiest: the data needs should be oriented on the abundant conflicts. The more urgent conflict, the better data basis is needed.

Availability of data is connected to many external factors, and it remains the biggest problem. Data processing is a task of specialists and research on GIS (Geographic Information Systems).

The Italian Sea Protection Department started monitoring the marine and coastal water 10 years ago, in order to improve the knowledge and the protection of sea and marine ecosystems, to identify possible degradation situations and to prevent and reduce water pollution. Regions carry out the monitoring by environmental agencies, universities and research institutes. Collected data is 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 on the European concept of Environmental Quality Objectives. Such objectives imply searching quality indicators for the marine coastal environment, that can be identified on the base of the natural features and different uses of the coastal areas.

The Italian bathing water monitoring network is very 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 water and 500 points for lake and river water. In comparison with the European general rules (EC directive 76/160/CE), Italy has adopted more precautionary criteria, having as a point of reference guiding values, instead of the limit values.

In Slovenia, the implementation of spatial regulations is supervised by the Inspectorate for the Environment and Spatial Planning by the Ministry of the Environment and Spatial Planning. The Inspectorate maintains the Spatial Information System to facilitate the implementation and

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monitoring 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:

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

In addition, the Slovene 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 coordination, participation and involvement of the public in the procedure of spatial planning documents adoption.

Spatial planning inspection covers urban planning and construction work, 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 a person under inspection. In addition, a person under inspection has to restore land into its previous state or otherwise rehabilitate the land if it is not possible to restore it.

In Montenegro, the Physical Planning Act regulates besides the physical planning also the monitoring the physical space condition. Monitoring of the land-use involves 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 programs, as well as establishment and maintenance of an IT system on land-use.

Basic documentation on land-use 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 graphic layout of the current state of spatial development with analysis and evaluation of the state of environment. It also contains the analysis of implementation of spatial plans; records of public participation etc.

However, the data collection system in Montenegro is still inadequate for the purposes of ICZM as there is no institution responsible for this task.

### **5.7 Coastal and marine management: Summary**

To sum up, the Italian legal framework for the integrated coastal and marine planning is relatively advanced. Statutory spatial planning procedures are conducted in a transparent, negotiative, participatory way. The level of horizontal and vertical coordination is thus considerably high.

In the sphere of land-sea integration, adequate laws (Coastal Action Plans) on national, and, more significantly, regional level are adopted or 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, and most of them remain only on paper.

Oddly enough, in the former Yugoslavian countries, things have been better in the past already. The socialist style spatial planning practice was at an enviable level. Through its strong focus on the social equality goals it was largely similar to the modern standards of sector integration (esp. development and environmental components) and public participation, weak points being ... and unbalanced ownership structure.

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In Slovenia, e.g. in the 70's marine spatial plans were drafted on a regular basis by the municipalities, while the current trend is to shift the marine planning competence to the national level, which is causing somewhat 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>12</sup> and a series of programmes and projects are currently running, the most prominent being the CAMP Slovenia. Another potentially interesting feature of the Slovenia coastal & marine planning is its close correlation to Water Framework Directive.

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 on the field of coastal management.

Here again, former activities in managing Croatian coastal area were more encouraging. In the 70'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 against marine and coastal pollution. This office, although structurally underdeveloped presents still a potential to the Croatian ICZM.

Montenegrin spatial planning system seems to be particularly suffering under the over-abrupt introduction of the new political realm (abolition of old plans) and the still incomplete transition process. The main challenge is currently the save guarding of public interest in the conditions of almost uncontrolled entrepreneurs' freedom. This task is further limited by the inadequate system of collection of spatial data and bad communication patterns between the stakeholders, which altogether creates a disadvantageous environment for integrated management.

On the other hand, Montenegrin coastal management system has one major advantage over other Adriatic countries: the maritime zone comprising also a narrow coastal stripe is considered a public domain for general and special public purposes. The protection, maintainance 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 marine spatial plans is required, so far no such plan exists and the marine use is determined through temporary programmes of large number of institutions.

In Albania, a major obstacle to sustainable coastal development is considered the lack of spatial plans. The rate of their preparation is much too slow and thus incapable of preventing the wide-spread illegal construction practice. Re-privatisation is one of the major concerns of the Albanian government.

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 coordinated in the ICZM understanding.

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<sup>12</sup> Rupprecht 2006, 147

## **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 in 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 and ) it is reported that existing planning legislation is not sufficient for the sustainable management of the coast. Deficiencies in law enforcement are also reported, and 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 operationalise.

In none of the Adriatic countries there is a necessary legal and regulatory frame to allow for maritime spatial planning nor are the relevant institutions yet entitled with maritime spatial planning procedures.

A new legal basis is therefore required that gives equal weight to all land uses and development interests including agriculture water management, environmental management, nature protection and tourism etc. Moreover, to allow for improvement of Marine Spatial Planning, the said regulatory frame has to include also provisions for the MSP instruments, legislation, institutional setup, technical framework and procedures.

The first step towards this regulatory frame is the defining 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, define the shoreline fringe and the shore towards the sea as public domain and restrict construction and other use in the private property. Such measures have been reported to be quite successful for the public property part and are executed through national level government organizations.

- ➔ Define the marine and coastal area, on and off-shore and set up rules of its protection
- ➔ Coastal stripe as a public domain

Today it is necessary not only to adopt new documents in the area of marine planning and integrated coastal zone management, but, as well, to improve the existing legislature related to the planning and management of the coastal zone, with clear provisions to define the role of such documents in the system, as well as the responsibility of the stakeholders for the realization of these documents.

- ➔ Improvement of the framework regulating coastal management in all countries.
- ➔ Existing laws and strategies should be operationalised through adequate directives
- ➔ Adoption of specific marine legislation

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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. Spatial planning system of Croatia is a good example of a technically right goals and objectives, which however prove to be insufficient in the absence of implementable, clear and precise development regulations and control measures and. Croatia is, in this regard, in similar situation as other countries in transition which are endowed with valuable coastal resources but not enough restrictive mechanisms of their save guarding.

- Adjusting of urban and spatial planning tools in compliance with the ICZM Strategies (if existing),
- Better integration of the EIA procedures in the spatial planning processes

### 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 most cases (e.g. Croatia, Slovenia vvv) the responsibilities for coastal (terrestrial) 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 Slovenia and Montenegro- but even there it is not practiced 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 coordinative institutions or platforms where different parties can come together. The experience of Montenegrin Coastal Enterprise 'Morsko Dobro' shows that this is the right way forward.

Countries also differ greatly with respect to the degree of decentralization. Italy and Bosnia Herzegovina follow a very decentralized, federal or quasi-federal type of division of functions and tasks between national, regional (autonomous communities) and local (municipalities) level<sup>13</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 (example nature protection or waste disposal). National level is in turn often too far away and bureaucratic. Therefore, for the means 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 on regional level

- Entrust one single institution with responsibility for coastal zones
- Create intermediate (regional) level of governing
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<sup>13</sup> Rupprecht 2006, 147

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### 6.3 Vertical and horizontal coordination

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 coordinating mechanisms to derive collective and integrated approaches to coastal management and there are often constraints due to overlapping competition, limited authorities, 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 are 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 the 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 wide-spread 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 meeting 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 competence, 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 however is possible is defining them and emphasising their importance in the legal regulations, hand-books, guidebooks, strategies, trainings, media and wherever else possible.

- ➔ Defining the voluntary working methods for the informal dialogue
- ➔ Setting up regular meeting patterns to ensure constant exchange of information

### 7.4 Horizontal coordination

The awareness of the critical situation of the coastal areas have produced specific regulations, regional land use plans, studies, inventories and research, legislative measures and tools, whose application should contribute to protect coastal environment. In most Adriatic countries 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 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

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body, while the three ministerial departments mentioned above could serve as its secretariat and deal also with “day to- day” matters.

→ Inter-ministerial conference

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### 7.5 Stocktaking and 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 public and the authorities in charge of it, do not have the full confidence in this process and does not trust 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, similarly like in 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 meeting organising in an attractive, much frequented location (e.g. shopping-mall). Should be accessible for everyone, care / activities for children should be provided
- Promising ‘fun factor’ (e.g. combining it meet social event, providing food etc.)
- Giving satisfaction and/or social prestige i prestiż społeczny. Official acknowledgement on paper is a nice gesture.
- Giving fast, tangible results that are made public<sup>14</sup>.

Other voluntary measures transforming the wide-spread consultation into participation are after HYDER 1999: newsletters, flyers, stakeholders’ meetings and workshops, exhibitions and fairs, websites and media cooperation<sup>15</sup>.

-> Information campaign on benefits of public involvement

-> Handbook of voluntary measure in public participation

### 7.6 Awareness raising and education

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 wide-spread education campaign promoting the social engagement in spatial planning and also other areas of

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<sup>14</sup> BALLNUSS 2004

<sup>15</sup> HYDER 1999, 77-85

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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.

ECAT Tirana is doing some work on this field.

Additionally, an education system for ICZM is needed. Currently the education for spatial planning, as the closest discipline to ICZM, is not adequately considering ICZM in their curricula. Biology and marine sciences departments on the other hand are too technical and specialised in their area.

Therefore, a system of graduate or post-graduate training courses for ICZM should be developed in order to train experts. The communication between them should be also established.

### 7.6 Information as a basis for ICZM

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

Therefore, information giving and information taking is essential for ICZM.

In terms of information sharing, in most Adriatic countries a lack of transparency is reported when resource management decisions are being made. The instrument of public participation such as applied in spatial planning, EIA or SEA, or water basin management should be here of help, but in practice its potential is not fully used.

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 to un-fair trade between the business sector and the relatively poor institutions. Moreover, the so dearly obtained data is often out of date and in insufficient quality. Digital data are still 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 sort of 'coastal cadastre', all the identified coastal players would be obliged by law to provide certain data to the coordinating 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- so that they would equally profit from it.

The absolute accessibility of coastal cadastre to the public is recommendable, but extremely unlikely, as some of the stakeholders would never agree.

In all Adriatic countries the monitoring of the coast is in some way institutionalised. In most cases, by a multitude of authorities. From experience of eg. Slovenia and Italy 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 methodic support of the government.

- ➔ Land cadastre in GIS
- ➔ One institution responsible for monitoring and data management (cadastre)

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### 7.7 Bioersivity 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 sprawling, building up of second homes etc. Other common issues are: the change of coastal dynamics; a dwindling of the traditional fishery industry; the degradation of ecosystems and habitats; environmental risks along the coast; the loss and degradation of landscape; and environmental problems due to aquaculture, water sports activities and maritime transport are also common. The issues of environmental protection are still insufficiently considered in decision-making. Additionally, in countries like Croatia, X, Albania there is a lack of sustainable development vision for the coast.

By establishing the ICZM system, the mainstreaming of biodiversity into coastal policy and management framework will be enabled. 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 9).

Perceiving tourism as the main driving force of the coastal economy, does not mean reducing other economic sectors of importance and attention, or making a separate Integrated Tourism Development Plan but rather privileging an element of thought which becomes the ordering power of all others, enabling to have the best monitoring of the overall efficiency of the system, because tourism will thrive if the sea is clean and fish, mobility on the coast works well, coastal agriculture is quality-based and environmentally efficient.

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.

Fishery protection zones should become another integral part of Marine Spatial Plans. 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.

All in all, in this chapter should become visible that biodiversity is not one subject within the ICZM - on the contrary, biodiversity and landscape protection should be the central theme of all policies: either tourism, fishery, infrastructure planning etc. Marine Spatial Planning, but also the impact assessment tools such as EIA and SEA are perfect 'Trojan horses' for this purpose.

- Biodiversity mainstreaming
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### 8.6 Finance

Lack of suitable funding is frequently claimed as 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 one: 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 acute.

Still, a good, profoundly strategic planning document cannot be a bargain. Alone the extra team work 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 has 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 crayons-drafted map. The above recommended additional measures for public participation cost considerable extra money and effort too.

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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 of e.g. EU structural funds or sponsorship. In case of the latter caution is however recommended, not to create a situation where policy papers that are tailored with respect to 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 supports for preparation of physical plans from state. Such practice is recommended for other countries too, provided that payment is coupled on the fulfillment of such ICZM criteria as participation, sustainability, GIS and so on.

The probably best practice among the Adriatic countries can be observed in Montenegro - country with the lowest BPK per capita among the examined six. In Montenegro, 20 mln Euro have been so far invested in the coast development through public-private partnership between Public Enterprise for Coastal Zone Management (JP Morsko Dobro) and contractors - users of 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 in Montenegro is clearly defined and regulated, and the competences are centralized in a single authority.

- Co-financing mechanisms, e.g. private-public partnership
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## 7. Summary of recommendations

*This chapter will be written in the end*

The observance of principles of good ICZM vary to a great deal among countries. Long-term sustainable development intentions, local-specific orientation and a holistic approach are incorporated at least nominally in quite a number of national strategies or their equivalent. Much more problems appear in participation of stakeholders, application of adaptive planning and management procedures, working with natural processes, proper integration of various administrative bodies and the use of a balanced combination of instruments in planning and management.

In the absence or ill-working spatial planning system, like the Montenegrin or Albanian one, SEA or similar impact assessment procedures could provide a satisfactory framework for maritime management.

Another promising trend is the cooperation with in the framework of the Water Basin Management plans in Slovenia.



## **8. Supporting processes**

### **8.1 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 problems, find appropriate measures for protection and sustainable management of coastal areas. In the period from 1996 until 1999, in the EU member countries implemented Demonstration Programme on ICZM (ICAM) 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 ICZM measures in Europe and they 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, at EU level the Expert Group was formed, 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 challenges and priority issues in integrated coastal area management in EU member states. The most important conclusion of this report were that none of 24 EU member states had adopted National Strategy for ICZM according to the 2002 Recommendations, while in 7 countries strategies were in the procedure of adopting. In 6 countries documents related to spatial planning which integral part was ICZM were adopted, while in 11 countries design of National Strategies for ICZM were under way.

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

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

### **8.2 Regulatory framework for ICZM in the Mediterranean region**

In 1960's the Mediterranean has been 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 1970's, the countries of Mediterranean sent the 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) as the Program for Regional Seas, and in 1976 in Barcelona, the Declaration on Mediterranean Protection from the Land Pollution with the Protocols was established. 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.

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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 last 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, 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 activities of the Mediterranean Action Plan. Croatia e.g. houses 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 Mediterranean basin were published in 1995 by Regional Activities Centre for the Priority Action Programme (RAC/PAP) in Croatia. The White Paper on ICAM: Strategic Vision for ICAM and CAMP projects proposes recommendations for ICAM implementation on regional, national and local level, 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 (Coastal Area Management Programme- see page XX) by RAC/PAP, help identifying and applying methodology and mechanisms related to ICAM and are 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 cooperation, 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.

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, intensive

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fishery. Also in coastal area there are certain problems specific not only for coasts and those are: control of urban expanding, maintenance of quality in agriculture, better water resources management etc.

The UNEP MAP Protocol for the Integrated Mediterranean Coastal Area Management (expected to be signed in January 2008) will represent the unique regional regulatory tool for the ICAM process. This protocol includes principles of the ICAM, institutional measures, recommendations for new tools and measures regarding international collaboration. It is now in the phase of drafting. This protocol will give guidelines for: defining the coastal area, principles and elements of ICAM, coordination among institutions, protection and sustainable use of coastal area, preserving special coastal eco systems, coast erosion, cultural heritage, public participation, training, collaboration and scientific researches.

### **8.3 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 **Master Plan of the Adriatic.**

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).

Other UNEP-MAP bodies and initiatives are:

- Commission for Sustainable development
- Agenda 21 for the Mediterranean.
- The Mediterranean Technical Assistance Programme (METAP), which is implemented by the World Bank,
- IMO
- International Convention on Prevention of Pollution from Ships (1973),
- Convention on the Prevention of Pollution of the Sea by Dumping of 1972;
- Convention on the Responsibility for Transport of Harmful Substances by Sea (1990);
- International Convention on the Preparedness,
- Action and Co-operation in Cases of Pollution by Oil (1990)

The Code of Conduct on Responsible Fishing, also including the principles for a sustainable development of aquaculture, was approved by all countries participating in the FAO Conference on fishing in October 1995. The Conference was the first meeting to discuss fishing and aquaculture issues of the UN member states, while the Code represented the first global response to fishing problems, with two chapters entirely devoted to fishing and aquaculture. Scientific research, participation of the stakeholders and the efforts of the States to voluntarily disseminate the Code criteria seem to be the right basic elements to build a new aquatic production policy.

International regulations on Maritime transport:

- The International Maritime Organization - IMO and its permanent committees, the Marine Environment Protection Committee, MEPC, and the Maritime Safety Committee, MSC. Through the IMO, the main regulations and technical standards of maritime transport and navigation are set, to be enforced globally for ships flying any flag;

## **CURRENT POLICY AND PRACTICE OF COASTAL AND MARITIME PLANNING IN THE ADRIATIC REGION**

- The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea, REMPEC, is the technical centre created within the framework of the United Nations Environmental Programme/Mediterranean Action Plan, UNEP/MAP. The UN system is particularly important for its elaboration and support to the implementation of international agreements for the Mediterranean Sea protection and of the Protocol to the Barcelona Summit concerning possible strategies in response to environmental emergencies;
- The European Commission and its Transport and Energy Directorate General, in charge of proposing, elaborating and implementing communitarian regulations concerning maritime transports and port activities;
- The European Maritime Safety Agency and the European Environment Agency.