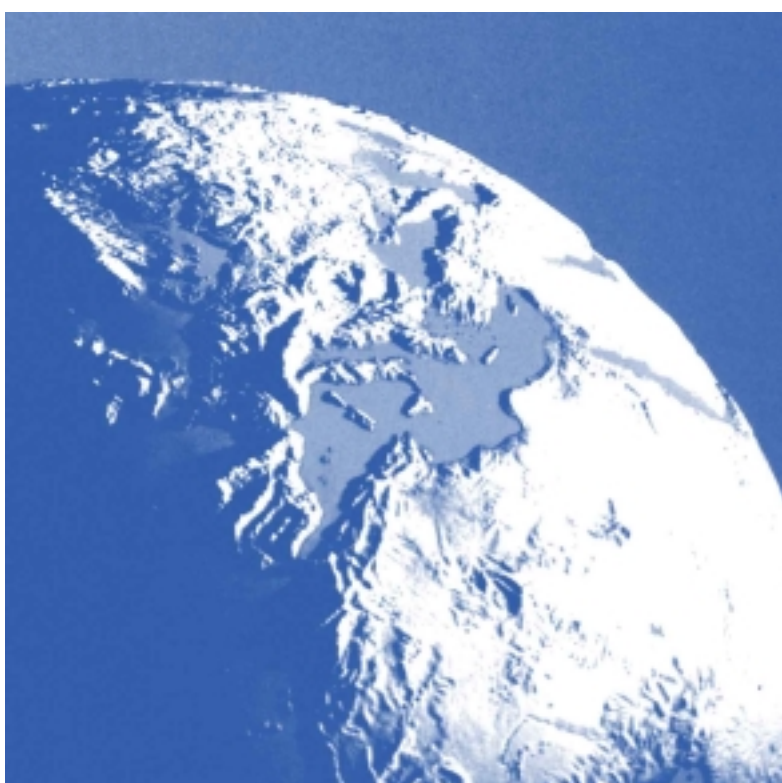




# Indicators for Sustainable Development in the Mediterranean Coastal Regions



National Report of Croatia



Plan Bleu pour  
l'environnement et  
le développement en  
Méditerranée  
Regional Activity  
Centre



Sophia Antipolis,  
November 2002

# Indicators for Sustainable Development in the Mediterranean Coastal Regions

## National Report of Croatia

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## **1 Definition of the study area**

The Republic of Croatia is located in South-eastern Europe in the Balkan peninsula. Formely a constituent republic of the Socialist Federal republic of Yugoslavia, Croatia declared its independence on June 15, 1991. A war ensued and lasted until 1996. With the election of a new government in January 2000, which replaced the former nationalist government, discussions with the EU on association have been initiated. The Agreement on Stabilisation and Association was signed between Croatia and the EU on 29 of October 2001. The Croatia is now facing two main challenges: to consolidate democracy to underpin long-term political and social stability; and to implement a comprehensive program of structural reforms to achieve political and economic transition.

The country has an area of about 56 538 km<sup>2</sup>. Its largest cities include Zagreb, the capital and main industrial centre with population of 726 770; Split (190 000) and Rijeka (167 000), two major cities (ports) on the Adriatic Sea Croatian coast line; Osijek (104 000), an industrial centre. The total population is about 4 700 000.

The coastline of Croatia is 2000 kilometers long on the Adriatic Sea. It has over 1000 islands. About 37% of the land is covered by forests. The geology is primarily karst, and karst ecosystem supports a globally significant biodiversity. Given this diversification of landscape and economic development, it is not surprising that Croatia exhibits many forms of environmental degradation – from pollution of air, water and soil, to inadequate management of natural resources and biodiversity, as well as contributions to regional and global problems like ozone depletion and climate change. Compared with other countries of central and Eastern Europe, few of Croatia's environmental problems could be categorized as severe or pervasive, rather they tend to be moderate in severity, limited in extent, and potentially manageable.

The main environmental problems for the entire country and particularly for the coastline are those that relate to water and air pollution, and soil erosion. The level of many atmospheric pollutants exceeds international accepted standards in some hotspots such as the industrial city of Zagreb, Rijeka and Split. Forest fires were the main cause of soil erosion in many parts of the country for several years. The level of erosion is particularly severe in central and coastal Istria as well as in the river Neretva delta.

Based on the recommendation from the contracting parties presented in October 1999 in Malta, the Croatia has initiated a calculation of the indicators to the Mediterranean coastal regions and to all the relevant geographical levels. In the Croatia there are several thematic centres (either private or governmental institutions) in charge for the environmental monitoring.

Within the coastal region of the Croatian Adriatic Sea the elaboration of specific indicators will allow to better grasp the issues that are currently important in the coastal region and particularly the new developments of the Croatian Adriatic Sea. The level of geographical information and the cartography available in Croatia, for the purpose of the country physical planning program, will help sustainable development and allow the spatial visualization of different stakes and zones of conflict.

## ***2 Description of the major sustainable development stakes, the decision's making processes and data availability***

In the Croatian coastline on the Adriatic Sea there are several key sustainable development stakes that are in different stages of their development. Each of them will have to share a part of the Adriatic Sea environment by promoting the best management practice. To maintain the sustainable development decision means finding a way to promote all development stakes by minimising their conflicting issues and conflicting zones.

### **2.1 Major stakes of sustainable development**

The history of different activities about Adriatic Sea spatial planning and environmental protection goes back in late eighties when a study aimed at providing strategic planning framework for protection and preservation of Adriatic Sea was initiated. After that, many other studies were undertaken without precisely defined objectives that resulted in a series of documents of a little usefulness towards developing a comprehensive Adriatic Sea Master Plan (ASMP). The promotion of sustainable development indicators could help focusing future activities towards ASMP to be effective and useful in implementing the sustainable development of the Croatian coastline.

Today, the Croatian government and other relevant institutions within Croatia, are having a clear vision that ASMP should provide a strategic planning framework for the environmental infrastructure development, which is aimed at securing the sound base for a sustainable development of the entire Adriatic coastal area. In this respect, the sustainable development indicators; specifically the common set of 130 indicators, including 52 indicators proposed for the sub-national level, can be used as a basic set for the indicators selection. It allows to compare the evolutions of the coastal regions with those of the country (including inner regions) but also with the coastal regions of the other countries. The indicators are useful tool to study the sustainable development issues in the coastal regions and to communicate the major results to the decision makers in a dashboard form.

On the Croatian coastline we can identify almost all typical Mediterranean stakes of sustainable development found in other countries as well. The ones that will in the near future be key players of the sustainable development in Croatian coastline are:

- Recreation and tourism
- Nautical tourism
- Mariculture
- Agriculture and other upland activities
- Coastal industries
- Maritime transport

The Figure 1. shows the key development stakes and their possible conflicting issues on the Croatian coastline of the Adriatic Area.

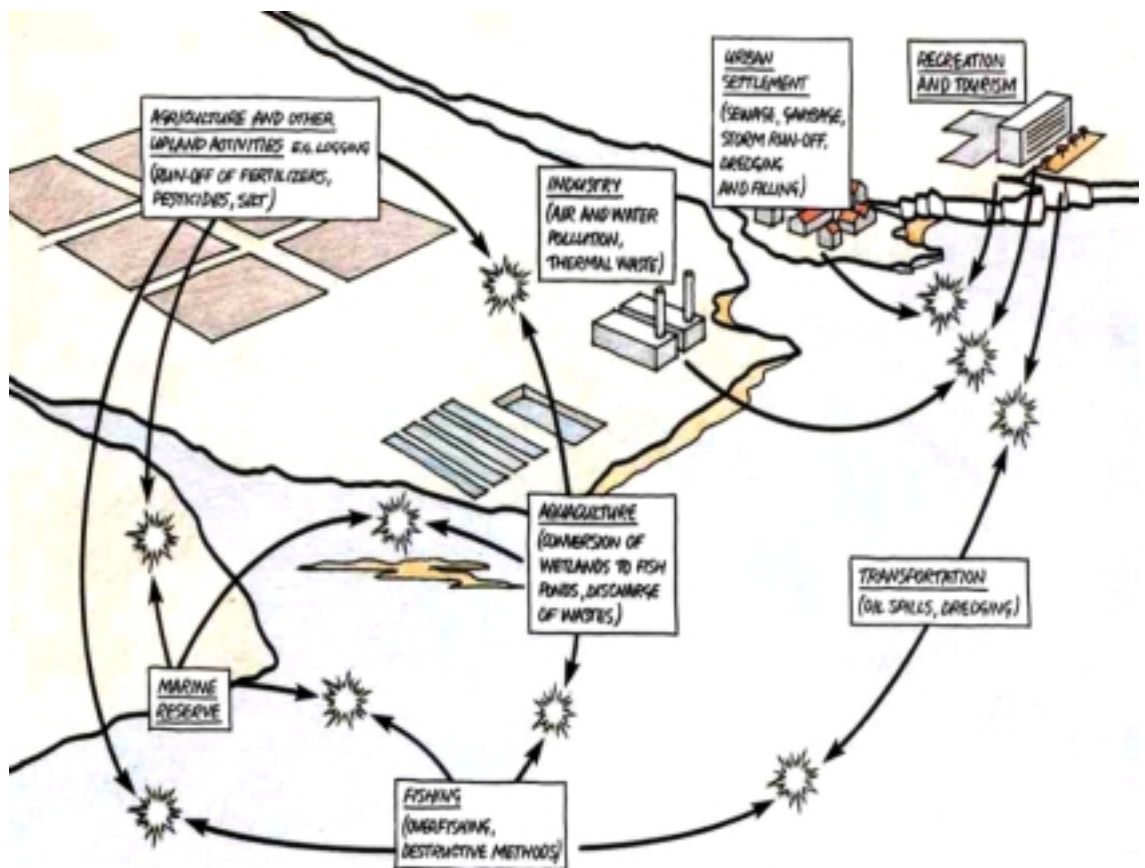


Figure 1. Schematic description of conflicting zones for major sustainable stakes

Due to the specific structure of the Croatian coastline, with more than 1000 islands, there are numerous locations where key sustainable development stakes are in conflicting zones. The adoption of the

environmental indicators could help finding a way how to objectively compare and economically compromise different conflicting issues between different stakes. Although the most indicators are calculated for a geographical scale corresponding to the national or country level, some indicators can also (or exclusively) be calculated for smaller geographical units (counties). Indicators calculated on the county level in Croatia can be aggregated into indicators calculated on coastal region or coastal strip. The issue of scales is very specific in Croatia and even more pronounced in the Croatian coastline. The fact that Croatian coastline has more than 1000 islands and its geological karstic features are making the scale issue very difficult to compare with other Mediterranean countries. In the Croatian Adriatic Sea we can differentiate three major scale levels exhibiting distinct features. Figure 2. shows some simplified scale levels encountered in the Croatian coastline.

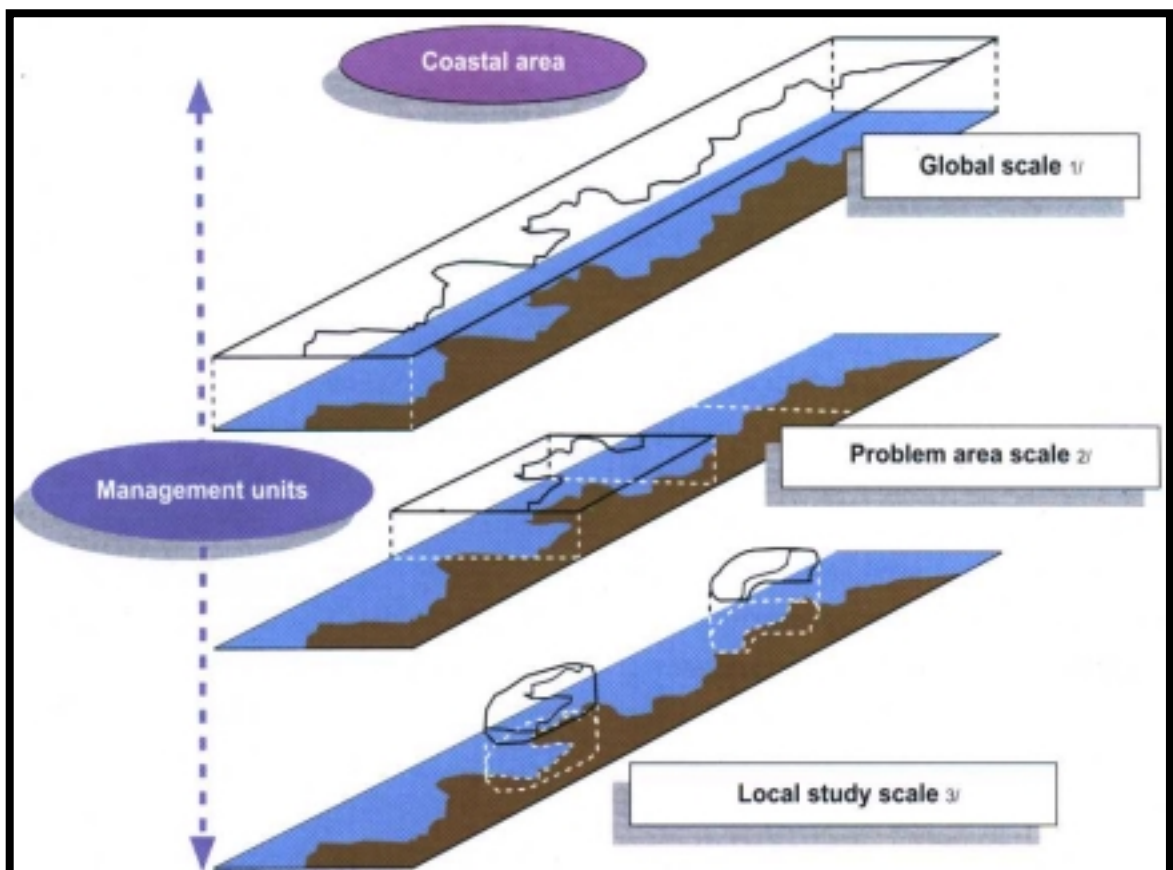


Figure 2. Different spatial management scales

The choice of the priority issues of development and the selection of the scale at which the key-indicators will be calculated, should be done if possible within the framework of a management project carried out by the country. Currently there are three major projects where Croatian coastline is involved. The first one is the Adriatic Sea Environmental

Master Plan (financed by the European Investment Bank) that will present using the cartographic description the key environmental indicators at the problem scale level. The second one is the coastal zone management project (financed by the GTZ) that will focus on the Northern Adriatic Sea and the third one is the development of the Strategic Environmental Assessment for the aquaculture in the Adriatic Sea developed for a two local study areas (financed by the Norwegian government). The completion of those projects will clearly establish the position of the Republic of Croatia towards future management of the Adriatic Sea resources, with intention to provide a wide range of investment opportunities for local, national and international investors. All of this will be based on the need to provide environmentally sound infrastructure, which will be developed in a compliance with EU standards.

## **2.2 Institutional description of the decision-making**

In Croatia there are several Thematic Centres in charge for different sectors of environmental monitoring. Besides those centres there is a Central Bureau of Statistics that is collecting and interpreting different sets of data collected on national, county and local level. For each country it is essential that data collection for the environment and other aspects of country data reporting are carried out by a unified agency that will gather all thematic centres and institutions responsible for different data collection practices.

The synergy between the national and local institutions collecting the environmental data, physical planning institutions and statistical institutes is essential to select and calculate the indicators in an objective way by using the fully available information.

The most important new development in Croatia is the passed legislation of forming the Agency of Environmental Protection. This agency will need to perform the above-mentioned synergy and to assure the prompt reporting of the Croatian environmental status.

The task that is still in front of all relevant institutions in Croatia and particularly for the new agency is to calculate and adopt the set of indicators in an objective, unbiased way. Only in this way the agency can produce an information set useful for the analysis of the sustainable development and management of the coastal regions.

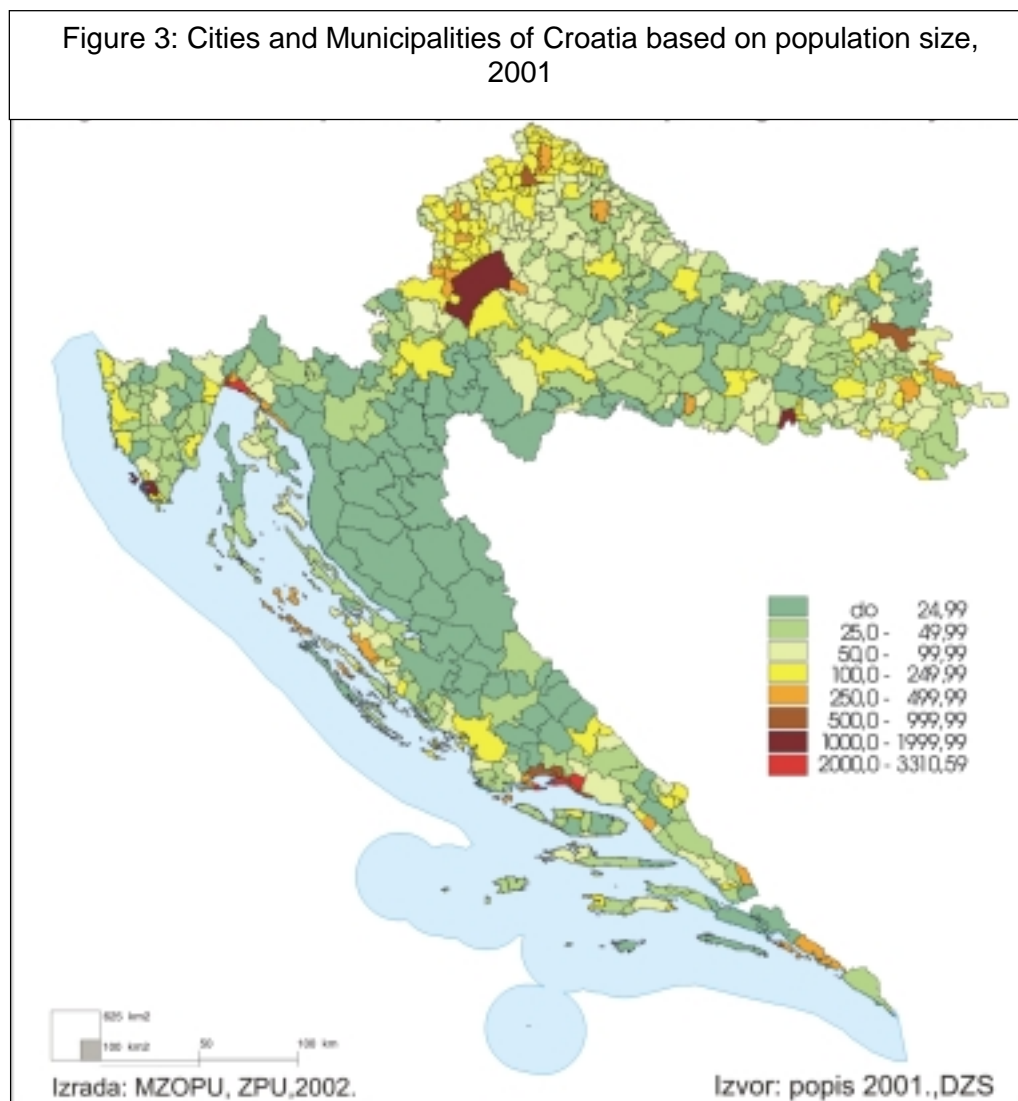
## **2.3 Availability and accessibility of the basic data**

The availability and accessibility of data in the Croatian structure of institutions in charge for data collection is very difficult. Among different thematic centres there are those who are privately owned and contracted by the government to collect and interpret the certain sector of data they collect. To obtain necessary data from those institutions to calculate certain indicators is very costly and with the very small budget available for this project was simply impossible.

On the other hand the geographical and administrative levels as well as periods for which the data are available are variable from county to county. Due to the war from 1991 to 1996, several counties simply were not able to collect data and gaps are very difficult to bridge with any meaningful interpretation. For the present project the beneficial coincidence was the fact that the Ministry of Environment and Physical Planning is in the stage of completing the country environmental report that made some of the indicators available.

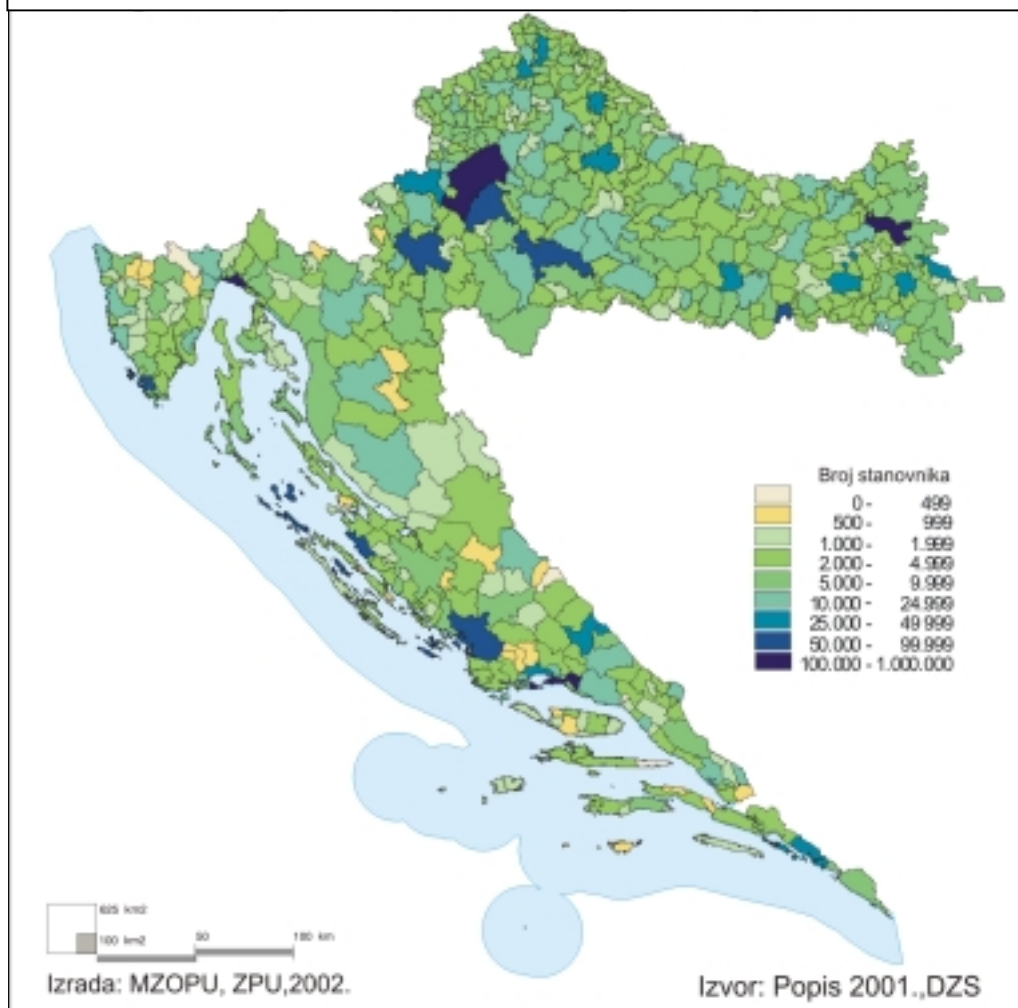
### 3 Description of the current situation

In Figure 3. we present the cartographic map of the Croatia sizes of municipalities and cities based on population data. Data are based on the Census 2001 and provided by the Central Bureau of Statistics.



On Figure 4. the population density for municipalities and cities is presented with clear indication that major population on the Croatian coastline is concentrated around two major cities, Rijeka and Split.

Figure 4. Cities and municipalities of Croatia based on population density, 2001



### 3.1 Cartographic description of the stakes

The current situation in the Croatian coast line and corresponding Adriatic Sea is a clear increase in the pressure coming from three major stakes; nautical tourism, mariculture and maritime transport. There are obvious conflicting issues and conflicting zones that can be well identified in the 9 physical planning maps for the Split-Dalmatia County, which are shown in annexe.

#### List of maps

1	Land use
2	Infrastructures and networks
3	Conditions for use and preservation of spaces
4	Territorial and political organisation
5	Major agglomerations and development centres
6	Agricultural land use
7	Population, households and urbanisation
8	Public and social facilities
9	Economy, employment and tourism

### 3.2 Selection of one priority stake and of the corresponding indicators

Croatia coastline is currently under severe pressure from different stakes. Besides those often found in the Mediterranean, like coastal tourism, nautical tourism, mariculture etc., the maritime transport is becoming an important issue as well.

Having recognised the hazard and damage to the sea environment caused by the sea pollution from ships carrying all kinds of mineral oils and other hazardous and harmful substances and by the industries located on the sea coast, numerous actions have been undertaken aimed at prevention of sea pollution.

There will be from the year 2003 an increasing number of big ships entering the Adriatic Sea. They transport mass, bulk, dry, liquid and various hazardous cargoes. The coastal trade and navigation have been very much developed, in particular among the Italian, Slovenian and Croatian ports. This is why the consideration of navigable routes in the Adriatic Sea is becoming very important.

Besides the maritime transport which will become an important stakeholder in the near future, the mariculture and its sustainable development is a key challenge for the Croatian coastline resources. Adriatic Sea is a closed body of water and has its limits in carrying capacity. In this report we will examine all available data that can for a basis for calculating the environmental indicators relevant to the mariculture. This will be compatible to the existing projects in the Croatia and should help identifying those indicators that could be used to monitor and observe the trends in the sustainable development of mariculture together with other important stakes, primarily nautical tourism and maritime transport.

Bellow we provide the selected list of indicators that will be identified as relevant indicators for mariculture in the Croatia coastline. This report will provide information on those indicators that are currently being collected and will discuss the future efforts in starting to collect the necessary data for those indicators that are not available at this moment.

We also select the Split-Dalmatia County as a study area where we will present our results and calculate those indicators that we were able to collect data from different sources.

### Selected list of indicators

n° 28: Number of tourists per km of coastline
n° 59: Number and average power of fishing boats <b>(not available)</b>
n° 30: Population growth in Mediterranean coastal regions
n° 60: Fishing production per broad species group <b>(not available)</b>
n° 31: Population density in coastal regions
n° 61: Production of aquaculture <b>(not available)</b>
n° 33: Protected coastal area
n° 62: Public expenditure on fish stock monitoring <b>(not available)</b>
n° 35: Global quality of coastal waters
n° 76: Number of tourist overnights
n° 37: Coastal waters quality in some main “hot spots”
n° 78: Number of tourist bed-places
n° 41: Wastewater treatment rate before sea release for coastal agglomerations over 100 000 inhabitants
n° 80: Number of international tourists
n° 43: Distribution of GDP (agriculture, industry, services)
n°84: Exploitation index of renewable water resources
n° 49: Employment distribution
n° 95: Wetland area <b>(not available)</b>
n° 58: Value of halieutic catches at constant prices <b>(not available)</b>
n° 97: Share of fishing fleet using barge <b>(not available)</b>

#### **4 Presentation of the results**

The selected indicators and those calculated based on the available data are presented graphically and tabulated for further use by different presentation techniques. In addition to the presented indicators, two CDs are provided with the full physical planning maps for the Split-Dalmatia County. These maps in the GIS can be used to augment the presented indicators for future presentation purposes and comparison with other countries having the same stakeholders selected.

The enclosed CDs can serve as a basic tool for spatial presentation of the selected indicators to demonstrate the actual carrying capacity of the key mariculture activities in the selected region.

As we stated in the beginning of this report, the Prospective of these indicators is impossible for the Croatia since during the war most of the data were not collected. The data gap is simply too large to make any meaningful interpretation for possible trends among the indicators. We would continue to measure and monitor those indicators and in the future we might be able to provide some estimation of trends. The newly established Environmental Protection Agency will clearly establish the new set of standards for data collection and will continue developing trends for the country environmental reporting.

The available spatial presentation of the environmental data should be helpful to the Blue Plan to apply some dashboard presentation ideas. Within the Croatian Environmental protection Agency we will continue to work on some modified dashboard presentation technique that will combine the current static dashboard software provided by the Blue Plan and some spatial planning tools that will allow the dashboard presentation to be more dynamic, allowing the real time changes to happen in the presentation routine. We hope that in the future communications and applications of the sustainability analysis we will be able to present those new features for dashboard presentation.

## **5 Calculation of the indicators**

<b>28- NUMBER OF TOURISTS PER KM OF COASTLINE</b>		
<b>CHAPTER 2</b>	<b>THEME 4</b>	<b>CATEGORY</b>
<b>LANDS AND AREAS</b>	<b>LITTORAL AND "LITTORALISATION"</b>	<b>P</b>

This is the number of tourists residing during the peak period, along Mediterranean coastal regions, in proportion to the length of the coastline.

The duration of stay by tourists is accounted for in number of overnight stays in the area.

Tourist overnight stays correspond to the number of overnight stays in Hotels and similar establishments, in addition to all the other tourist accommodation structures like campsites, self-catering accommodation, etc.

The peak period is defined as the two weeks period in the year accommodating the greatest number of tourists. This period is unique and indivisible; each country will specify the season and, if possible, the month.

Unit:

Number of tourist overnights per km of coastline and per day

### **1 – Comments on the definition of the indicator**

In Croatia official data on tourists and their overnights stays exist on monthly basis. In Split-Dalmatia county the month accomadating the greatest number of tourists is August.

### **2 – Availability of necessary data**

For years 1991, 1992 and 1993 no data on tourist overnights exist on the county level.

### **3 – Comments on the evolution and the meaning of the indicator in your country**

The number of tourist overnight stays in the coastal region of Croatia has been the highest in the middle of the 1980s. In the next few years the number of tourists decreased due to economic and political crisis in ex-Yugoslavia. In 1991, Croatia has declared independence from Yugoslavia and a four years war followed. Due to military conflict, international tourists avoided Croatia in 1991, 1992, 1993, 1994 and 1995. Smaller number of tourist overnights in 1995 than in 1994 is a direct result of the liberation battle that took place in August 1995. In successive years number of tourists gradually increased.

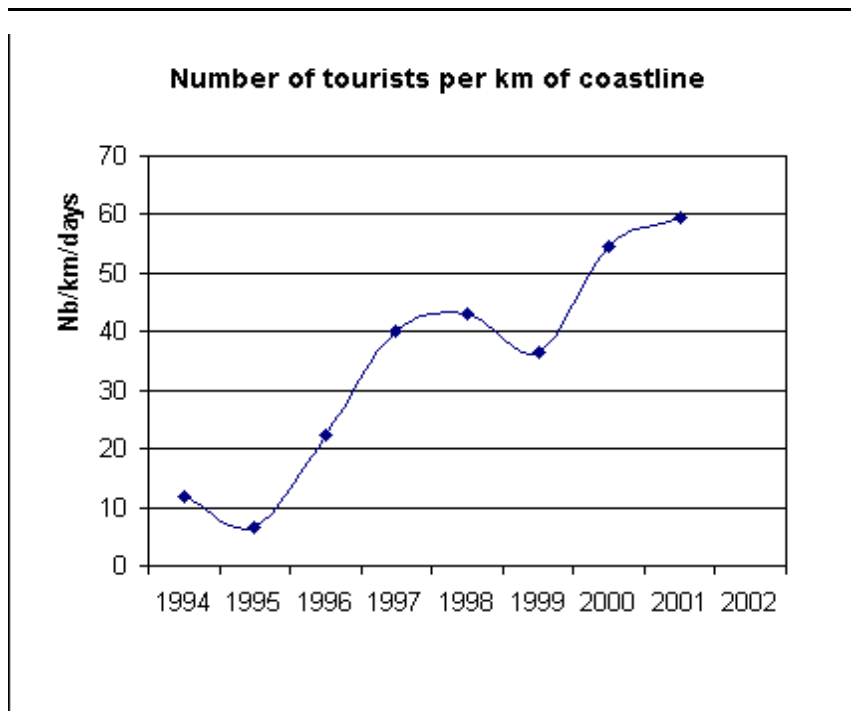
N° : 28

Indicator : Number of tourists per km of coastline

	Number of tourists overnights per km of coastline and per day	Tourist overnights	The length of the coastline	The peak period
Units	Nb/km/days	Nb	km	days
Years				
1994	11,78	399.593	1.094	31
1995	6,45	218.588	1.094	31
1996	22,31	756.606	1.094	31
1997	40,01	1.356.773	1.094	31
1998	43,08	1.461.158	1.094	31
1999	36,34	1.232.552	1.094	31
2000	54,69	1.854.709	1.094	31
2001	59,32	2.011.616	1.094	31
2002				

Place: County of Split-Dalmatia

Sources: Croatian Bureau of Statistics



<b>30- POPULATION GROWTH IN MEDITERRANEAN COASTAL REGIONS</b>		
<b>CHAPTER 2</b> <b>LANDS AND AREAS</b>	<b>THEME 4</b> <b>LITTORAL AND</b> <b>"LITTORALISATION"</b>	<b>CATEGORY</b> <b>E</b>

Population growth rate is defined as the average annual rate of change of population size during a specified period.

Formula: 
$$\left( \sqrt[y-x]{\frac{P_y}{P_x}} - 1 \right) \times 100$$

Py = population in year y

Px = population in year x

Unit:

Percentage

### **1 – Comments on the definition of the indicator**

In Croatia annually collected data is not available on the county level.

### **2 – Availability of necessary data**

Annual estimated number of inhabitants is available only on the national level. Data given are based on census data, which are collected every ten years (last 2001). The County Physical Master Plan uses data from year 1991 (available on CD). Graphics with data for 2001 are also available on the CD.

### **3 – Comments on the evolution and the meaning of the indicator in your country**

Number of inhabitants in Croatia has increased according to census data collected in the period from year 1953 to 1991. Due to Croatian War of Independence population dropped in the last decade (90's) on the national level as well as on the county level. Population declined from 474,019 to 463,676 based on Census data from 1991 and 2002 respectively.

N° : 30

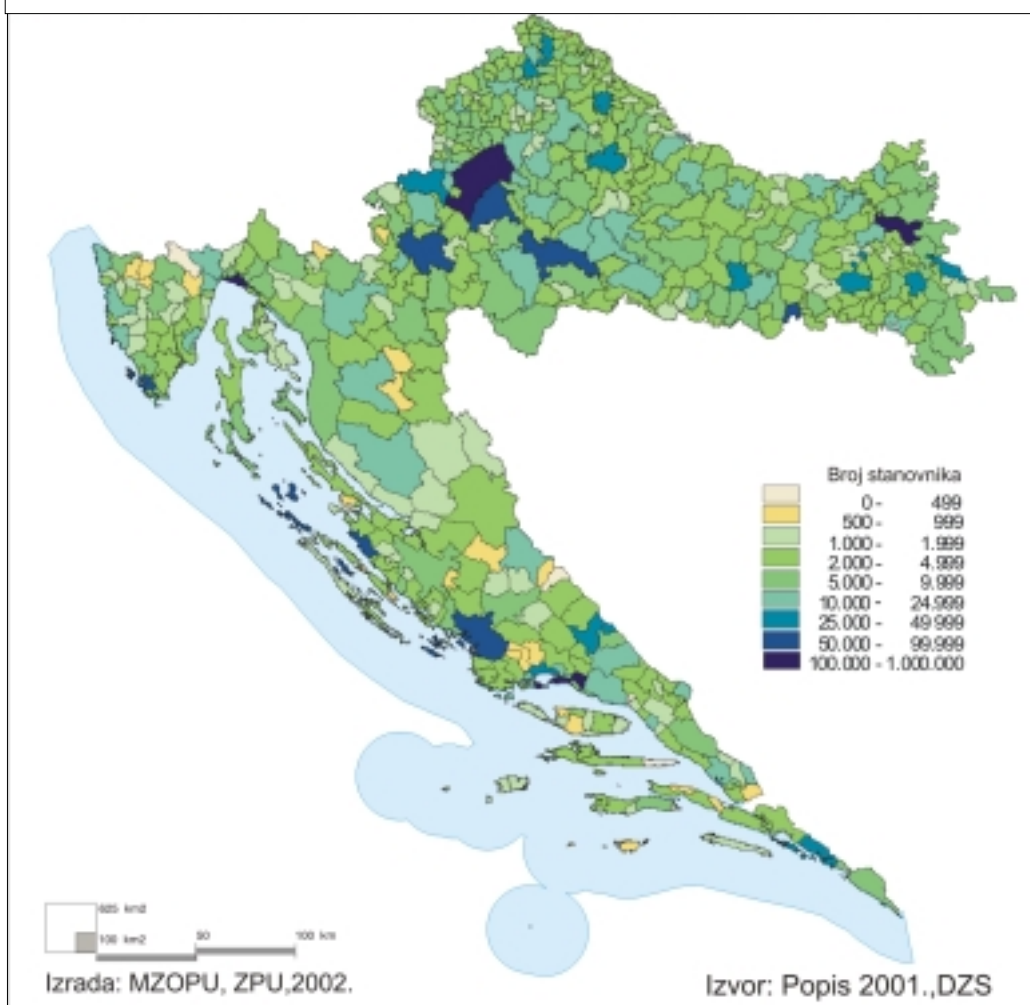
Indicator : Population growth in Mediterranean coastal regions

	Population growth in Mediterranean coastal regions	Inhabitants in the county	Inhabitants in the country
Units	%	Nb	Nb
Years			
1953			3 936 000
1961			4 160 000
1971			4 426 000
1981			4 601 000
1991		474 019	4 784 265
2001		463 676	4 437 460

Place: County of Split-Dalmatia

Sources: Croatian Bureau of Statistics

Cities and Municipalities of Croatia based on population size, 2001



<b>31- POPULATION DENSITY IN COASTAL REGIONS</b>		
<b>CHAPTER 2</b> <b>LANDS AND AREAS</b>	<b>THEME 4</b> <b>LITTORAL AND</b> <b>"LITTORALISATION"</b>	<b>CATEGORY</b> <b>E</b>

Population density in coastal regions is defined as the proportion of the permanent population of the Mediterranean coastal region over its area.

Unit:

Inhabitants / km<sup>2</sup>

### **1 - Comments on the definition of the indicator**

Definition is clear.

### **2 Availability of necessary data**

In Croatia yearly collected data on number of inhabitants are not available on the county level. Data given are based on census data collected in 1991 and 2001.

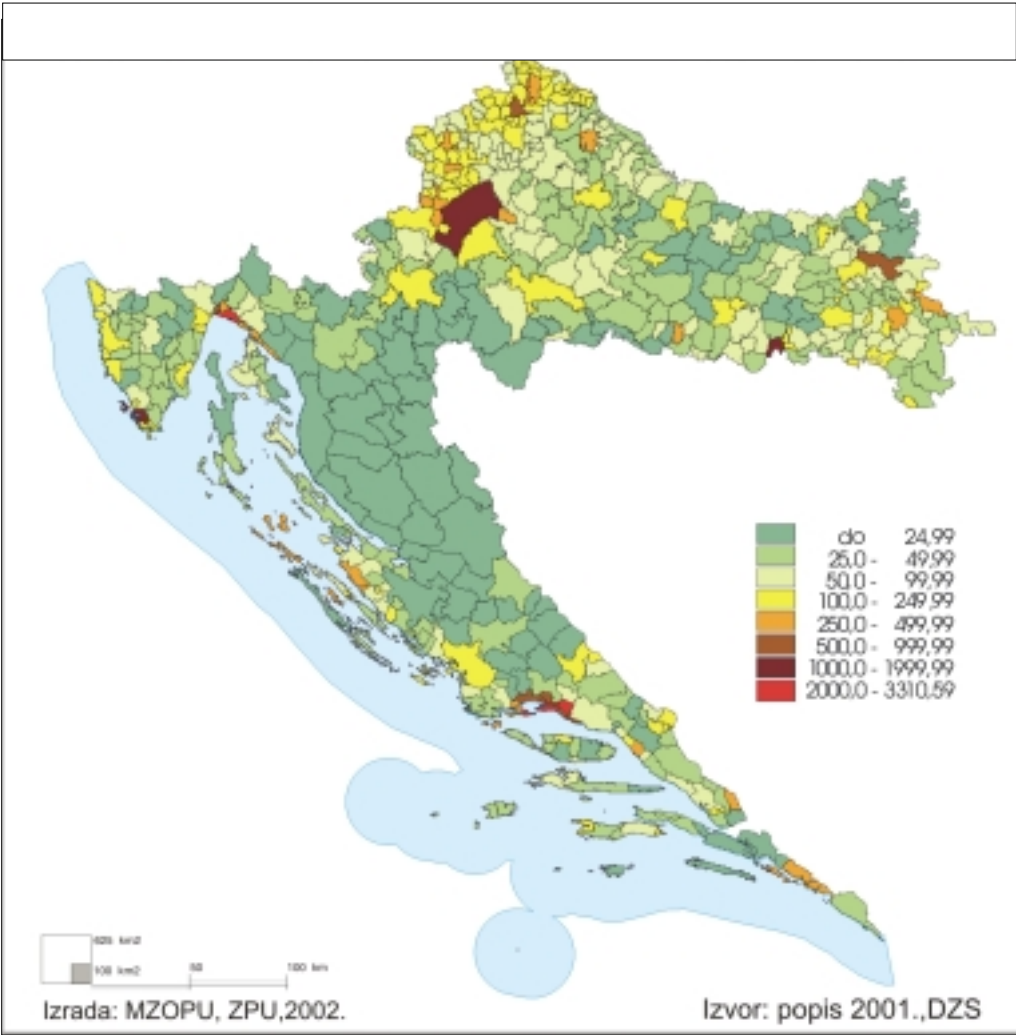
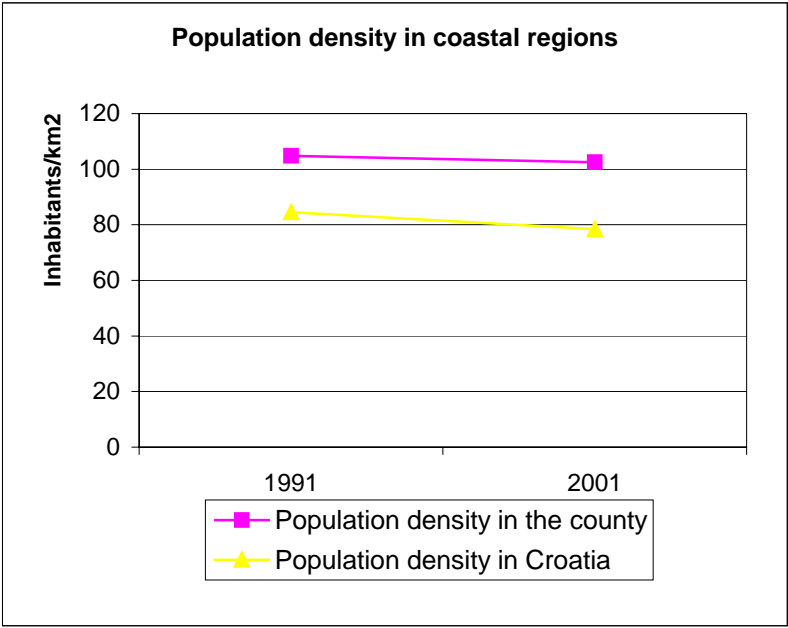
### **3 Comments on the evolution and the meaning of the indicator in your country**

Population density in the chosen county (County of Split-Dalmatia) is higher than the national average (102,5 inhabitants/km<sup>2</sup> compared to the national average of 78,4 inhabitants/km<sup>2</sup> in 2001). Both population densities, on the county and on the national level have decreased in the last decade (90`s). Most dense are area of City of Split and Kastela Bay.

	Population density in the county	Inhabitants in the county	County area	Population density in Croatia	Inhabitants in Croatia	Area of Croatia
	Inhabitants/km2	Nb	km2	Inhabitants/km2	Nb	km2
<b>1991</b>	104,78	474 019	4 524	84,51	4 784 265	56 610
<b>2001</b>	102,50	463 676	4 524	78,39	4 437 460	56 610

Place: **County of Split-Dalmatia**

Sources: **Croatian Bureau of Statistics**



33- PROTECTED COASTAL AREA		
<b>CHAPTER 2</b> <b>LANDS AND AREAS</b>	<b>THEME 4</b> <b>LITTORAL AND</b> <b>"LITTORALISATION"</b>	<b>CATEGORY</b> <b>R</b>

This indicator is set for a given year by the total area of protected zones, which are coastal as a whole in part, that is to say that they contain within their bounds coastal eco-systems (continental and/or marine). It is the total area of the protected area that is taken into account even though the coastal portion often only makes up a small proportion overall.

Unit:

Hectares

### **1 – Comments on the definition of the indicator**

Coastal area is defined as the area bounded by the nature barricade on the continental side (example: a river or a mountain).

### **2 – Availability of necessary data**

Data are available and collected.

### **3 Comments on the evolution and the meaning of the indicator in your country**

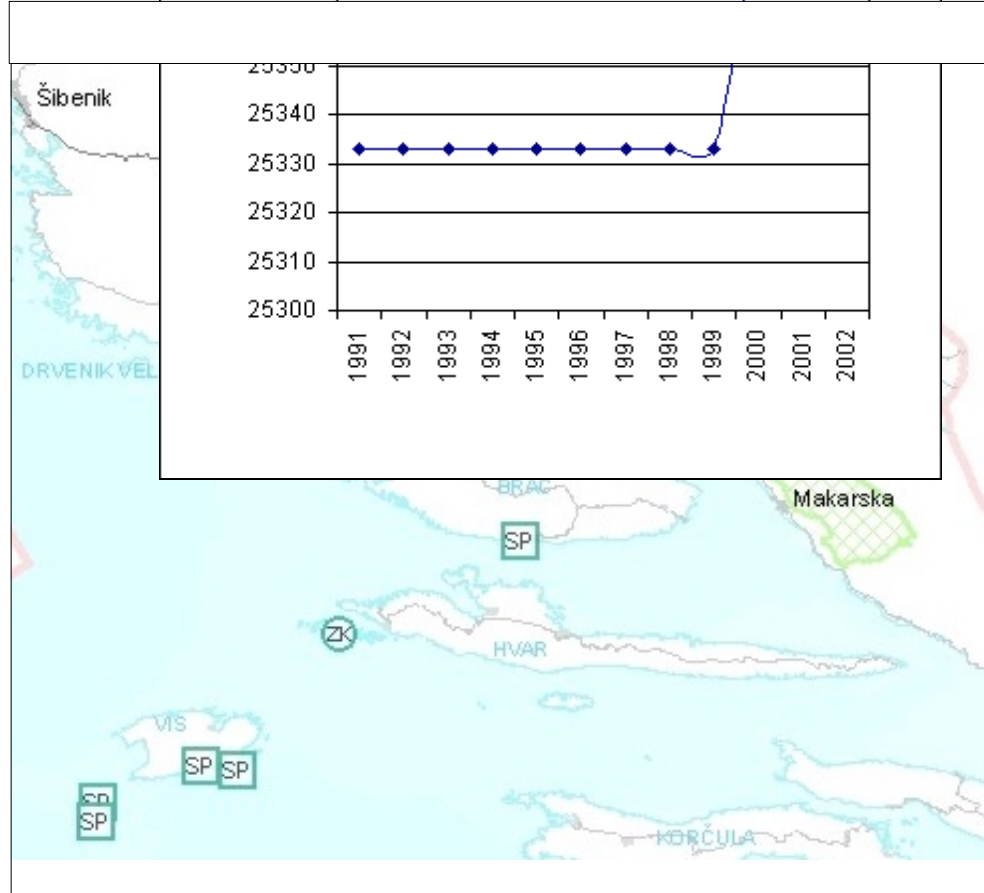
Protection of coastal areas in the County of Split-Dalmatia started in 1950`s when two volcanic islands Jabuka and Brusnik were protected. The mountain of Biokovo, protected as the nature park enjoys the highest level of protection in the county. It is also the largest protected area in the County of Split-Dalmatia (19 550 ha). Protected coastal area in the chosen county makes 5,6% of the total county area (253,73 km<sup>2</sup> of protected coastal area out of 4 524 km<sup>2</sup> of total county area). In the last decade, from year 1991 till 2000 the size of protected coastal area remained the same – 25.333,11 ha. In the year 2000 the size of protected coastal area increased for 40,20 ha when wetland area Pantan was protected as an ichtio-ornitological reserve. Croatia also participates in the implementation of the Barcelona Convention for the Protection of the Marine Environment and the Coastal region of the Mediterranean.

NO	NAME OF PROTECTED AREA	AREA IN HA	PROTECTED SINCE	CATEGORY OF PROTECTION
1.	Biokovo	19 550,00	1981	Nature park
2.	Marjan	350,00	1964	Nature park
3.	Kanjon Cetine	1 100,00	1963	Protected landscape
4.	Brela	700,00	1964	Protected landscape
5.	Pakleni otoci	634,38	1968	Protected landscape
6.	Vidova Gora (Brač)	1 880,00	1970	Protected landscape
7.	Dolina Blaca (Brač)	56,00	1986	Protected landscape
8.	Zečevo (Hvar)	11,00	1968	Protected landscape
9.	Šćedro (Hvar)	920,00	1968	Protected landscape
10.	Uvala Stiniva (Vis)	4,00	1967	Protected landscape
11.	Ravnik (Vis)	27,00	1967	Protected landscape
12.	Brusnik	3,00	1951	Geological nature monument
13.	Jabuka	1,15	1958	Geological nature monument
14.	Modra spilja	--	1951	Geomorfological nature monument
15.	Zlatni rat	66,50	1965	Geomorfological nature monument
16.	Ravnik – Zelena spilja (Vis)	--	1967	Geomorfological nature monument
17.	Medvidina spilja (Biševo)	--	1967	Geomorfological nature monument
18.	Kolač (Brač)	--	1986	Geomorfological nature monument
19.	Grapčeva pećina (Hvar)	--	1974	Geomorfological nature monument
20.	Jadro (Solin)	7,80	1984	Ichtiological special reserve
21.	Pantan	40,20	2000	Ichtiornitological reserve
22.	Kotišina (Makarska)	16,50	1984	Botanical garden
23.	Trogir – Park ex Fanfogna	1,30	1962	Park
24.	Kaštel Lukšić – Park Vitturi	0,75	1968	Park
25.	Kaštel Stari – park	3,73	1970	Park

N° : 33  
Indicator : Protected coastal area

Place:  
Sources:

Protected coastal area



<b>37- COASTAL WATERS QUALITY IN SOME MAIN “HOT SPOTS”</b>		
<b>CHAPTER 2</b>	<b>THEME 5</b>	<b>CATEGORY</b>
<b>LANDS AND AREAS</b>	<b>SEA</b>	<b>E</b>

This indicator shows the distribution of “hot spots”, identified in the country during the cross-border diagnostic study by the Mediterranean Action Plan (ref. MAP/TRS/124), in each of the six quality classes suggested in this study.

**Unit:**

Number per classes

**1 – Comments on the definition of the indicator**

Definition is clear.

**2 – Availability of necessary data**

Data exist from two sources, MEDPOL and project Adriatic.

**3 – Comments on the evolution and the meaning of the indicator in your country**

Hot spot area in Split Dalmatia County is Kastela Bay. Please see the appendix 1 for the detailed data on coastal water quality

## 41- WASTEWATER TREATMENT RATE BEFORE SEA RELEASE FOR COASTAL AGGLOMERATIONS OVER 100 000 INHABITANTS

CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY R
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This is the proportion of wastewater produced by coastal agglomerations of more than 100 000 inhabitants that have been treated enough to allow discharge into the environment without resulting in an impact neither on human health nor on ecosystems.

**Unit:**

Percentage

### 1 – Comments on the definition of the indicator

According to census data collected in 2001 the only coastal agglomeration over 100 000 inhabitants in the county of Split-Dalmatia is Split.

### 2 – Availability of necessary data

The only collected data on wastewater treatment rate before sea release are for the year 2001.

### 3 – Comments on the evolution and the meaning of the indicator in your country

In year 2001, 48% of wastewater produced in the town of Split has been treated before being released into the sea. Since no data for other years are available, evolution of this indicator can not be commented.

N° : **41**

Indicator : **Wastewater treatment rate before sea release for coastal agglomerations over 100 000 inhabitants**

	Wastewater treatment rate before sea release	Total wastewater volume	Treated wastewater volume
<b>Units</b>			
<b>Years</b>	<b>%</b>	<b>m3</b>	<b>m3</b>
<b>2001</b>	47,92	16.979.000	8.135.000
<b>2002</b>			

**Place:** County of Split-Dalmatia

**Sources:** Annual report on public sewage-system

<b>49- EMPLOYMENT DISTRIBUTION (AGRICULTURE, INDUSTRY, SERVICES)</b>		
<b>CHAPTER 3</b>	<b>THEME 1</b>	<b>CATEGORY</b>
<b>ECONOMIC ACTIVITIES AND SUSTAINABILITY</b>	<b>GLOBAL ECONOMY</b>	<b>E</b>

This indicator represents the respective proportion of the active population in each of three major economic sectors: Farming, Industry and Services, out of the total active population.

The proportion for tourism within services is also desirable but remains difficult to pick out.

**Unit:**

Respective percentage of the three sectors

### **1 – Comments on the definition of the indicator**

Data do not include employed persons in the police and defence, persons employed in crafts and trades and free-lances as well as private farmers. Since 1999 the number of persons employed in crafts and trades and free-lances are included.

Until 1997 data on the number of the persons in employed in legal entities were surveyed by the regular statistical survey only according to the UCEA (Uniform Classification of Economic Activities) and since than according to National Classification of Economic Activities. These two classifications are not comparable.

### **2 – Availability of necessary data**

Data are available and collected.

### **3 – Comments on the evolution and the meaning of the indicator in your country**

In year 2001 the highest number of persons in Split-Dalmatia county is employed in services (68,6%). 29,5% of employed persons works in industry and 1,9% works in agriculture. According to comments given on the definition of the indicator, here is given the comment on the evolution of the indicator for a period beginning with 1999. For the years 1999, 2000 and 2001 employment distribution in agriculture stagnates around 1,8%, in industry it is around 30% and in services around 68%.

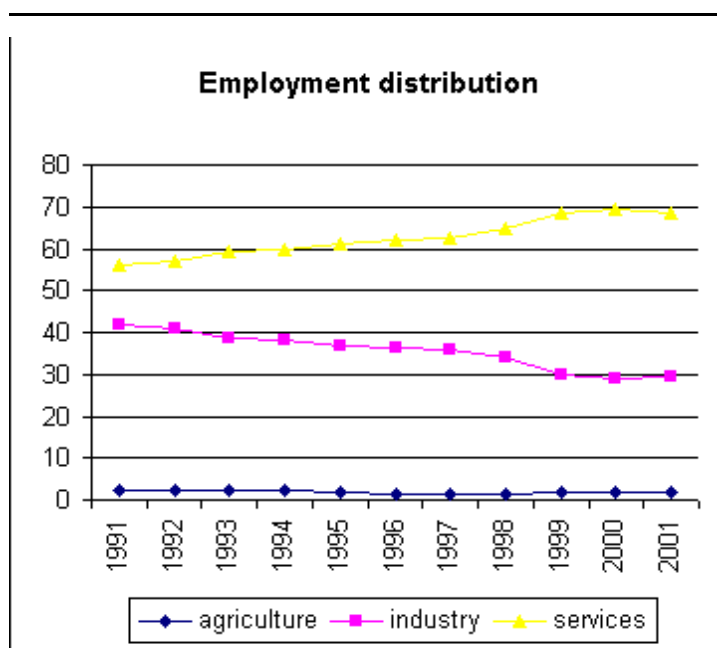
N° : 49

Indicator : Employment distribution (agriculture, industry, services)

		Employment distribution in agriculture	Employment distribution in industry	Employment distribution in services
Units Years	Name of the Unit	%	%	%
1991		2,2	41,8	56,0
1992		2,4	40,7	56,9
1993		2,3	38,5	59,2
1994		2,1	38,3	59,6
1995		2,0	36,8	61,2
1996		1,5	36,5	62,0
1997		1,5	36,0	62,5
1998		1,5	33,9	64,6
1999		1,8	29,8	68,4
2000		1,7	29,0	69,3
2001		1,9	29,5	68,6
2002				

Place: County of Split-Dalmatia

Sources: Croatian Bureau of Statistics



<b>76- NUMBER OF NIGHTS PER HUNDRED INHABITANTS</b>		
<b>CHAPTER 3</b> <b>ECONOMIC ACTIVITIES AND SUSTAINABILITY</b>	<b>THEME 8</b> <b>TOURISM</b>	<b>CATEGORY</b> <b>P</b>

This indicator is defined as the number of national and international overnight stays in hotels and similar establishments (H&A) compared annually with the number of inhabitants in a country.

The formula is: 
$$\frac{\text{National and international tourist overnight stays} \times 100}{\text{total national resident population}}$$

**Unit:**

Number per hundred inhabitants.

### **1 – Comments on the definition of the indicator**

Definition is clear.

### **2 – Availability of necessary data**

Annual number of inhabitants on the national level is available only for years 1991 and 2001 based on census data.

### **3 – Comments on the evolution and the meaning of the indicator in your country**

The number of tourist overnights in the coastal region of Croatia reached its peak in the middle of the 1980`s. Due to Croatian War of Independence, in years 1991, 1992, 1993, 1994 and 1995 foreign tourists avoided Croatia. In the following years number of tourists gradually increased. The number of tourist overnight stays fell in 1999 due to Balkan`s turmoil.

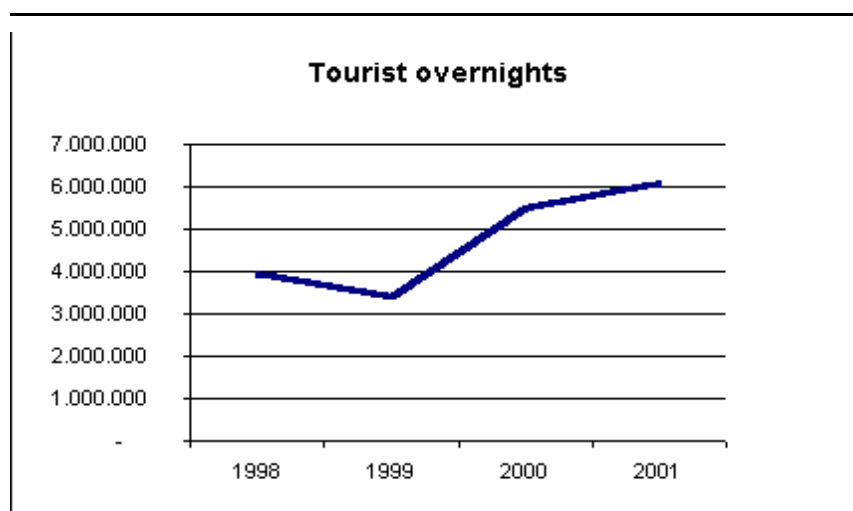
N° : 76

Indicator : Number of tourist overnights per hundred inhabitants

	Number of tourist overnights per hundred inhabitants	Tourist overnights	Inhabitants in the country
Units Years	Nb	Nb	Nb
1991			4.784.265
1998		3.961.782	
1999		3.406.053	
2000		5.494.268	
2001	136,92	6.075.612	4.437.460
2002			

Place: County of Split-Dalmatia

Sources: Croatian Bureau of Statistics



<b>78- NUMBER OF BED-PLACES PER HUNDRED INHABITANTS</b>		
<b>CHAPTER 3</b> <b>ECONOMIC ACTIVITIES AND SUSTAINABILITY</b>	<b>THEME 8</b> <b>TOURISM</b>	<b>CATEGORY</b> <b>P</b>

This is the number of beds in hotels and similar establishments (H&A) compared to the population annually.

The formula is: 
$$\frac{\text{Number of beds (H\&A)} \times 100}{\text{Total national resident population}}$$

**Unit:**

Number per hundred inhabitants

### 1 – Comments on the definition of the indicator

Definition is clear.

### 2 – Availability of necessary data

Annual number of inhabitants on the national level is available only for years 1991 and 2001 based on census data.

Data on bed-places are available only for years 1999 and 2000.

### 3 – Comments on the evolution and the meaning of the indicator in your country

It is impossible to comment the indicator because the necessary data are not available. An estimate for 2000 is 0.534 beds for 100 inhabitants

N° : **78**

Indicator : **Number of bed-places per hundred inhabitants**

	Number of bed-places per hundred inhabitants	Bed places	Inhabitants in the country
Units Years	Nb	Nb	Nb
<b>1991</b>			4.784.265
<b>1999</b>		23.708	
<b>2000</b>		24.065	
<b>2001</b>			4.437.460

Place: **County of Split-Dalmatia**

Sources: **Croatian Bureau of Statistics**

<b>80- NUMBER OF INTERNATIONAL TOURISTS PER 100 INHABITANTS</b>		
<b>CHAPTER 3</b> <b>ECONOMIC ACTIVITIES AND SUSTAINABILITY</b>	<b>THEME 8</b> <b>TOURISM</b>	<b>CATEGORY</b> <b>P</b>

This indicator is defined by the number of arrivals by international tourists compared annually to the number of inhabitants in a country.

Formula: 
$$\frac{\text{International tourist arrivals} \times 100}{\text{Total national resident population}}$$

Unit:

Number per hundred inhabitants

### **1 – Comment on the definition of the indicator**

Definition is clear.

### **2 – Availability of necessary data**

Annual number of inhabitants on the national level is available only for years 1991 and 2001 based on census data.

Data on international tourists in the County of Split-Dalmatia are available only for years 2000 and 2001.

### **3 – Comments on the evolution and the meaning of the indicator in your country**

Due to Croatian War of Independence, in years 1991, 1992, 1993, 1994 and 1995 international tourists avoided Croatia. In the successive years number of tourists gradually increased. Number of international tourists fell in 1999 due to Balkan`s turmoil.

<b>95- WETLAND AREA</b>		
<b>CHAPTER 4 ENVIRONMENT</b>	<b>THEME 3 BIOLOGICAL DIVERSITY, ECOSYSTEMS</b>	<b>CATEGORY P</b>

**N° :** 80  
**Indicator :** Number of international tourists per 100 inhabitants

	Number of international tourists per 100 inhabitants	International tourists	Inhabitants in the country
Units Years	Nb	Nb	Nb
1991			4.784.265
2000		725.200	
2001	19,87	881.605	4.437.460
2002			

**Place:** County of Split-Dalmatia  
**Sources:** Croatian Bureau of Statistics

This indicator measures the total area of wetlands in the country. It includes the area of national sites classified in the list of internationally significant wetlands in the RAMSAR Convention.

**Unit:**  
Square kilometres

### 1 – Comments on the definition of the indicator

Definition is clear.

### 2 – Availability of necessary data

Necessary data are available and collected.

### **3 – Comments on the evolution and the meaning of the indicator in your country**

In the county of Split-Dalmatia no wetland area is classified in the list of internationally significant wetlands in the RAMSAR Convention.

At the moment four national sites – Lonjsko polje, Kopački rit, Crna Mlaka and lower Neretva are classified in the list of RAMSAR Convention in Croatia. They make 1,42% of Croatian territory (80.500 km<sup>2</sup> of sites included in the RAMSAR list out of 56 610 km<sup>2</sup> of total Croatian territory).

## APPENDIX 1

### Indicator 37: Coastal water quality in some hot spots

NOTE: Source: MEDPOL

Table 1. Evaluation of the seawater sanitary quality in Split-Dalmatia County according to the Croatian criteria, 2000 (Official Gazette, 33/1996). n - number of samples; C - comply; NC - not comply.

Area	Station	N	Total coliforms		Faecal coliforms		Faecal streptococci		Sanitary quality
			< 500	<1000	< 100	< 200	< 100	< 200	
Gradac	2001	10	100	100	100	100	80	90	NC
	2002	10	100	100	100	100	100	100	C
	2003	10	100	100	100	100	80	100	C
	2004	10	100	100	100	100	100	100	C
	2005	10	100	100	100	100	100	100	C
Podgora	2006	10	100	100	100	100	100	100	C
	2007	10	100	100	100	100	80	100	C
	2008	10	100	100	90	100	100	100	C
Makarska	2009	10	100	100	90	100	100	100	C
	2010	10	100	100	90	100	100	100	C
	1011	10	100	100	100	100	100	100	C
	1012	10	100	100	100	100	100	100	C
	1013	10	100	100	100	100	100	100	C
	2014	10	100	100	100	100	90	100	C
Baska Voda	2015	10	100	100	100	100	100	100	C
	2016	10	100	100	100	100	100	100	C
	2017	10	100	100	100	100	100	100	C
	2018	10	100	100	100	100	100	100	C
	2019	10	100	100	100	100	100	100	C
Brela	2020	10	100	100	100	100	100	100	C
	2021	10	100	100	100	100	100	100	C
	2021	10	100	100	100	100	100	100	C
Omis	2023	10	100	100	100	100	100	100	C
	2024	10	100	100	100	100	100	100	C
	2025	10	100	100	100	100	100	100	C
	2026	10	100	100	100	100	100	100	C
	2027	10	100	100	100	100	100	100	C
	2028	10	100	100	100	100	100	100	C
	2029	10	100	100	100	100	100	100	C
	2030	10	100	100	100	100	100	100	C
	2031	10	100	100	100	100	100	100	C
	2032	10	100	100	100	100	100	100	C
	2033	10	100	100	100	100	100	100	C
	2034	10	100	100	100	100	100	100	C
	2035	10	100	100	100	100	100	100	C
	2036	10	100	100	100	100	100	100	C
	2037	10	100	100	100	100	100	100	C
2038	10	100	100	100	100	100	100	C	

Area	Station	N	Total coliforms		Faecal coliforms		Faecal streptococci		Sanitary quality
			< 500	<1000	< 100	< 200	< 100	< 200	
Split	2039	10	100	100	100	100	100	100	C
	2040	10	100	100	100	100	100	100	C
	2041	10	100	100	100	100	100	100	C
	2042	10	100	100	100	100	100	100	C
	2043	10	100	100	100	100	100	100	C
	2044	10	100	100	100	100	100	100	C
	2045	10	100	100	100	100	100	100	C
	2046	10	100	100	100	100	100	100	C
	2047	10	100	100	100	100	100	100	C
	2048	10	100	100	100	100	100	100	C
	2049	10	100	100	100	100	100	100	C
	2050	10	100	100	100	100	100	100	C
	2051	10	100	100	100	100	100	100	C
	2052	10	100	100	100	100	100	100	C
	2053	10	100	100	100	100	100	100	C
	2054	10	100	100	100	100	100	100	C
2055	10	100	100	90	100	100	100	C	
2056	10	100	100	90	100	90	100	C	
Kastela	2057	10	100	100	80	90	80	100	NC
	2058	10	100	100	90	90	80	100	NC
	2059	10	100	100	80	100	80	100	C
	2060	10	100	100	90	100	90	100	C
	2061	10	100	100	100	100	100	100	C
	2062	10	100	100	100	100	100	100	C
	2063	10	100	100	100	100	100	100	C
	2064	10	100	100	100	100	100	100	C
	2065	10	100	100	100	100	100	100	C
	2066	10	100	100	100	100	100	100	C
2067	10	100	100	100	100	100	100	C	
Trogir	2068	10	100	100	100	100	100	100	C
	2069	10	100	100	100	100	100	100	C
	2070	10	100	100	100	100	100	100	C
	2071	10	100	100	90	100	100	100	C
	2072	10	100	100	90	100	100	100	C
	2073	10	100	100	100	100	100	100	C
	2074	10	100	100	90	100	100	100	C
	2075	10	100	100	100	100	100	100	C
	2076	10	100	100	100	100	100	100	C
	2077	10	100	100	100	100	100	100	C
	2078	10	100	100	100	100	100	100	C
	2079	10	100	100	100	100	100	100	C
	2080	10	100	100	100	100	100	100	C
	2081	10	100	100	100	100	100	100	C
2082	10	100	100	100	100	100	100	C	
2083	10	100	100	100	100	100	100	C	
2084	10	100	100	100	100	100	100	C	
2085	10	100	100	100	100	100	100	C	
2086	10	100	100	100	100	100	100	C	
Rogac	2087	10	100	100	100	100	100	100	C
Maslinica	2088	10	100	100	100	100	100	100	C
Milna	2089	10	100	100	100	100	100	100	C
	2090	10	100	100	100	100	100	100	C
Sutivan	2091	10	100	100	100	100	100	100	C
	2092	10	100	100	100	100	100	100	C

Area	Station	N	Total coliforms		Faecal coliforms		Faecal streptococci		Sanitary quality
			< 500	<1000	< 100	< 200	< 100	< 200	
Supetar	2093	10	100	100	100	100	100	100	C
	2094	10	100	100	100	100	100	100	C
	2095	10	100	100	100	100	100	100	C
	2096	10	100	100	100	100	100	100	C
	2097	10	100	100	100	100	100	100	C
	2098	10	100	100	100	100	100	100	C
Splitska	2099	10	100	100	100	100	100	100	C
Postira	2100	10	100	100	100	100	100	100	C
	2101	10	100	100	100	100	100	100	C
	2102	10	100	100	100	100	100	100	C
	2108	10	100	100	100	100	100	100	C
Pucisca	2103	10	100	100	100	100	100	100	C
	2104	10	100	100	100	100	100	100	C
Povlja	2105	10	100	100	100	100	100	100	C
	2106	10	100	100	100	100	100	100	C
Sumartin	2107	10	100	100	100	100	100	100	C
Puntinak	2109	10	100	100	100	100	100	100	C
Bol	2110	10	100	100	100	100	100	100	C
	2111	10	100	100	100	100	100	100	C
	2112	10	100	100	100	100	100	100	C
	2113	10	100	100	100	100	100	100	C
Vis	2114	10	100	100	90	100	100	100	C
	2115	10	100	100	100	100	100	100	C
	2116	10	100	100	80	100	100	100	C
	2117	10	100	100	90	100	100	100	C
	2118	10	100	100	100	100	100	100	C
Stari Grad	2119	10	100	100	90	100	100	100	C
	2120	10	100	100	80	100	90	100	C
	2121	10	100	100	100	100	100	100	C
	2122	10	100	100	100	100	100	100	C
Hvar	2123	10	100	100	100	100	100	100	C
	2124	10	100	100	100	100	100	100	C
	2125	10	100	100	100	100	100	100	C
	2126	10	100	100	90	100	100	100	C
	2127	10	100	100	90	100	100	100	C
	2128	10	100	100	100	100	100	100	C
	2129	9	100	100	100	100	100	100	C
	2130	9	100	100	89	100	100	100	C
	2131	9	89	100	89	100	100	100	C
	Vrboska	2132	9	100	100	100	100	100	100
Jelsa	2133	9	100	100	100	100	100	100	C
	2134	9	100	100	100	100	100	100	C

Table 2. Evaluation of the seawater sanitary quality on beaches along the Croatian Adriatic coast in the year 2000, according to the Croatian criteria (Official Gazette, 33/1996). C (%) - percentage of beaches which comply with the criteria of seawater quality.

<b>County</b>	<b>Area</b>	<b>Number of beaches</b>	<b>C (%)</b>
Split-Dalmatia	Gradac	5	80
	Podgora	3	100
	Makarska	6	100
	Baska Voda	5	100
	Brela	3	100
	Omis	16	100
	Split	18	100
	Kastela	11	82
	Trogir	19	100
	Rogac	1	100
	Maslinica	1	100
	Milna	2	100
	Sutivan	2	100
	Supetar	6	100
	Splitska	1	100
	Postira	4	100
	Pucisca	2	100
	Povlja	2	100
	Sumartin	1	100
	Puntinak	1	100
	Bol	4	100
	Stari Grad	5	100
	Hvar	4	100
	Vrboska	9	100
Jelsa	1	100	
		2	100

TABLE 3

Chlorinated hydrocarbon mass fractions in mussel samples collected from the eastern coastal waters of the Adriatic Sea during 1999/2000 on wet weight bases ( $w \times 10^9$  fresh weight).

Area Code	Station Code	Station Location and Description	Source Type	Latitude (DD,MM,SS,P)	Longitude (DD,MM,SS,P)
CRO 8	IN	INA-Vinil	Industrial	43°33'N	16°25'E
		INA-Vinil	Industrial	43°33'N	16°25'E
CRO 8	VR	Vranjic	Municipal and industrial	43°32'N	16°28'E
		Vranjic	Municipal and industrial	43°32'N	16°28'E
		Vranjic	Municipal and industrial	43°32'N	16°28'E
CRO 8	BA	Bacvice	Municipal	43°30'N	16°27'E
		Bacvice	Municipal	43°30'N	16°27'E

Area Code	Station Code	Matrix and Species		Sampling Date	Organisms Count	Average Length $\pm$ S.D	Average Weight $\pm$ S.D.	
		Matrix	Species					
CRO 8	IN	Biota	MG	24.03.99.	15	56,0 $\pm$ 5,2	17,9 $\pm$ 4,7	
		Biota	MG	13.06.00.	21	55,1 $\pm$ 4,5	18,2 $\pm$ 4,5	
CRO 8	VR	Biota	MG	24.03.99.	16	47,4 $\pm$ 4,3	12,0 $\pm$ 2,9	
		Biota	MG	28.03.00.	26	45,3 $\pm$ 2,4	8,2 $\pm$ 1,8	
		Biota	MG	13.06.00.	21	55,9 $\pm$ 2,4	15,9 $\pm$ 2,4	
CRO 8	BA	Biota	MG	24.03.99.	27	29,0 $\pm$ 2,1	3,8 $\pm$ 0,9	
		Biota	MG	13.06.00.	30	35,4 $\pm$ 1,6	4,7 $\pm$ 0,8	

Area Code	Station Code	Remarks	Lindane	p,p'DDE	p,p'DDD	p,p'DDT	DDTtotal	PCB No18	PCB No28	PCB No52	PCB No44	PCB No66
CRO 8	IN		1,0	1,0	<0,2	1,7	2,8	<0,2	<0,2	<0,2	<0,2	<0,2
		<b>A.N.F.*</b>										
CRO 8	VR		0,6	1,8	1,3	1,2	4,2	<0,2	<0,2	0,5	<0,2	0,3
		<b>A.N.F.*</b>										
		<b>A.N.F.*</b>										
CRO 8	BA		0,4	1,5	<0,2	1,9	3,5	7,4	<0,2	<0,2	<0,2	2,0

**A.N.F.\* ANALYSIS IS NOT FINISHED YET**

Area Code	Station code	PCB No101	PCB No77	PCB No118	PCB No153	PCB No106	PCB No138	PCB No126	PCB No187	PCB No128
CRO 8	IN	0,9	1,0	<0,2	1,7	3,9	<0,2	<0,4	<0,4	<0,4
CRO 8	VR	1,1	<0,3	<0,2	3,0	7,0	<0,2	0,5	<0,4	0,8
CRO 8	BA	2,0	6,0	<0,2	3,9	9,0	<0,2	<0,4	<0,4	<0,4

Area Code	Station Code	PCB No180	PCB No170	PCB No195	PCB No206	PCB No209	$\Sigma$ 6 PCB	$\Sigma$ 19 PCB	AR1254
CRO 8	IN	1,0	<0,2	0,4	<0,2	<0,4	3,6	8,9	42
CRO 8	VR	1,9	<0,2	1,0	<0,2	<0,4	6,5	16,1	38
CRO 8	BA	2,4	<0,2	<0,2	<0,2	<0,4	8,2	32,7	242

$\Sigma$  6 PCB SUM OFFPCB NO:28+52+101+138+153+180

$\Sigma$  19 PCB SUM OFFPCB NO:18 +28+44+52+66+70+77+101+106+118+126+128+138+153+180+187+195+206+209

**MUNICIPAL EFFLUENTS**

<b>STATION : TR 1 - U</b>		<b>YEAR: 2000.</b>		<b>TABLE A 6.1.46</b>	
INDICATOR OF QUALITY V=350.000 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 6					
Effluent temperature	°C	12,1	25,9	18,2	
Sea temperature	°C	10	25,5	19	
Δt	°C	0,4	2,4	1,9	
pH		6,94	8,33	7,50	
Suspended matter - dry	mg/l	299	1210	611,3	213,96
BOD5	mg/l	74,51	498,4	227,9	79,77
COD	mg/l	340,9	968,2	593,1	207,59
Total N -Kjeldal	mg/l	46,3	200,2	107,00	37,45
Amonium	mg/l	30,5	120,4	77,60	27,16
Nitrite	mg/l	0	0	0,0000	0,0000
Nitrate	mg/l	0,261	1,21	0,6957	0,2435
Total phosphate	mg/l	13,98	28,12	17,9467	6,281
Ortho-phosphate	mg/l	7,32	27,72	12,6000	4,410
LIST B : n = 6					
Total oiliness	mg/l	2,254	190,68	44,0510	15,418
Mineral oil	mg/l	0	2,966	0,5798	0,2029
Phenols	mg/l	0,028	0,57	0,2570	0,0900
Anionic detergents	mg/l	1,98	31,75	12,3258	4,314
Halogenated hydrocarbons	mg/l	0,0011	0,00285	0,0020	0,0007
Cd	mg/l	0,002	0,018	0,0075	0,0026
Pb	mg/l	0	0,06	0,0208	0,0073
Cr	mg/l	0,001	0,02	0,0085	0,0030
Zn	mg/l	0,165	0,464	0,2751	0,0963
Hg	mg/l	0	0,00025	0,0001	0,0000
TC /100 ml		4,60E+10	7,20E+11	2,9583E+11	1,0354E+11
FC /100 ml		3,00E+10	6,40E+11	2,275E+11	7,9625E+10

STATION : KA 1 - U		YEAR: 2000.			TABLE A 6.1.47	
INDICATOR OF QUALITY V=200.000 m <sup>3</sup> /year	unit	min	max	mean	Load of pollution t/year	
LIST A : n = 6						
Effluent temperature	°C	12	26	19,08		
Sea temperature	°C	10	25,5	18,50		
Δt	°C	0,5	3	1,48		
pH		7,15	7,68	7,45		
Suspended matter - dry	mg/l	50	1204	378,83	75,766	
BOD5	mg/l	57,1	132,4	84,44	16,888	
COD	mg/l	95,1	798	289,30	57,860	
Total N -Kjeldal	mg/l	17,9	118,4	52,91	10,582	
Amonium	mg/l	10,9	59	35,17	7,034	
Nitrite	mg/l	0	0	0,0000	0,0000	
Nitrate	mg/l	0,059	0,825	0,2873	0,0575	
Total phosphate	mg/l	3,96	12,02	7,9667	1,5933	
Ortho-phosphate	mg/l	2,06	9,46	5,2600	1,0520	
LIST B : n =6						
Total oiliness	mg/l	1,369	20,94	5,3445	1,0689	
Mineral oil	mg/l	0	0,204	0,0423	0,0085	
Phenols	mg/l	0,008	0,154	0,0817	0,0163	
Anionic detergents	mg/l	1,58	17	6,0550	1,2110	
Halogenated hydrocarbons	mg/l	0,00039	0,00177	0,0011	0,0002	
Cd	mg/l	0,001	0,015	0,0052	0,0010	
Pb	mg/l	0	0,3	0,0702	0,0140	
Cr	mg/l	0	0,589	0,1123	0,0225	
Zn	mg/l	0,093	0,259	0,1500	0,0300	
Hg	mg/l	0	0,00026	0,0001	0,0000	
TC /100 ml		73000000	4,10E+11	1,4201E+11	2,8402E+10	
FC /100 ml		18000000	6,00E+10	3,5836E+10	7167266667	

<b>STATION: SO 1 - U</b>		<b>YEAR: 2000.</b>		<b>TABLE A 6.1.48</b>	
INDICATOR OF QUALITY V=500.000 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 6					
Effluent temperature	°C	11,7	26,1	19	
Sea temperature	°C	10	25,5	18,6	
Δt	°C	0	2,9	1,3	
pH		7,13	7,98	7,67	
Suspended matter - dry	mg/l	255	932	497,17	248,58
BOD5	mg/l	82,33	392,7	196,92	98,46
COD	mg/l	212,9	775,7	468,15	234,08
Total N -Kjeldal	mg/l	40,7	101,8	77,10	38,55
Amonium	mg/l	37,7	90	60,03	30,01665
Nitrite	mg/l	0	0	0,0000	0,0000
Nitrate	mg/l	0,325	1,191	0,5710	0,2855
Total phosphate	mg/l	9,3	17,3	13,6367	6,8184
Ortho-phosphate	mg/l	6,32	14,2	10,3433	5,1717
LIST B : n = 6					
Total oiliness	mg/l	1,722	116,6	32,1618	16,0809
Mineral oil	mg/l	0	0,171	0,0468	0,0234
Phenols	mg/l	0,058	0,238	0,1380	0,0690
Anionic detergents	mg/l	0,56	40,75	13,2225	6,6113
Halogenated hydrocarbons	mg/l	0	0,00207	0,0011	0,0005
Cd	mg/l	0,001	0,008	0,0040	0,0020
Pb	mg/l	0,019	0,06	0,0394	0,0197
Cr	mg/l	0,002	0,076	0,0225	0,0113
Zn	mg/l	0,169	0,458	0,2466	0,1233
Hg	mg/l	0	0,0002	0,0001	0,0001
TC /100 ml		2,70E+08	2,80E+11	7,90E+10	3,95E+10
FC /100 ml		1,20E+07	6,00E+10	2,40E+10	1,2E+10

<b>STATION : ST 1 - U 6.1.49</b>		<b>YEAR: 2000.</b>			<b>TABLE A</b>
INDICATOR OF QUALITY V=7,700.000 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 9					
Effluent temperature	°C	7,0	22,8	16,48	
pH		7,06	8,2	7,54	
Suspended matter - dry	mg/l	4	204	96	738,43
BOD5	mg/l	24,4	173,4	96,10	739,97
COD	mg/l	103,9	293,2	192,10	1479,17
Total N -Kjeldal	mg/l	12,96	89	39,20	301,84
Amonium	mg/l	6,3	46,8	24,50	188,65
Nitrite	mg/l	0	0,068	0,008	0,0585
Nitrate	mg/l	0,039	0,296	0,157	1,2066
Total phosphate	mg/l	1,48	8,44	4,853	37,370
Phosphate	mg/l	0,246	6,22	3,027	23,31021
LIST B : n = 9					
Total oiliness	mg/l	0,505	8,224	3,848	29,630
Mineral oil	mg/l	0	1,565	0,218	1,6794
Phenols	mg/l	0,004	0,104	0,046	0,3573
Anionic detergents	mg/l	0,211	4,7	2,590	19,946
Total halogenated hydrocarbons	mg/l	0,00084	0,00552	0,0032	0,0246
Cd	mg/l	0,006	0,02	0,0135	0,1040
Pb	mg/l	0,001	0,06	0,0291	0,2241
Cr	mg/l	0,005	0,039	0,0169	0,1301
Zn	mg/l	0,094	1,029	0,246	1,8942
Hg	mg/l	0	0,00269	0,0009	0,0069
TC /100 ml		2,00E+09	9,10E+11	1,5567E+11	1,1986E+12
FC /100 ml		2,70E+08	2,60E+11	6,5409E+10	5,0365E+11

<b>STATION : ST 3 - U</b>		<b>YEAR: 2000.</b>			<b>TABLE A 6.1.50</b>	
INDICATOR OF QUALITY V= 2,200.000 m3/year	unit	min	max	mean	Load of pollution t/year	
<b>LIST A : n = 9</b>						
Effluent temperature	°C	6,9	25	16,12		
Sea temperature	°C	10	24,5	19,0		
Δt	°C	0,3	7,5	3,49		
pH		6,91	7,69	7,39		
Suspended matter - dry	mg/l	1	164	46,90	103,18	
BOD5	mg/l	7,78	85,14	58,30	128,26	
COD	mg/l	22,6	263,2	149,20	328,24	
Total N -Kjeldal	mg/l	6,76	26,7	11,90	26,180	
Amonium	mg/l	3,1	18,6	8,329	18,324	
Nitrite	mg/l	0	0,045	0,005	0,0110	
Nitrate	mg/l	0,021	0,662	0,145	0,3188	
Total phosphate	mg/l	1,4	12,55	3,650	8,0300	
Ortho-phosphate	mg/l	0,827	4,2	1,672	3,6782	
<b>LIST B : n = 9</b>						
Total oiliness	mg/l	0,396	47,11	7,670	16,8749	
Mineral oil	mg/l	0	0,132	0,037	0,0816	
Phenols	mg/l	0,004	0,056	0,021	0,0460	
Anionic detergents	mg/l	0,43	10,65	3,289	7,2365	
Halogenated hydrocarbons	mg/l	0,0008	0,0104	0,0031	0,0068	
Cd	mg/l	0,001	0,07	0,0115	0,0253	
Pb	mg/l	0,0008	0,103	0,0343	0,0755	
Cr	mg/l	0,003	0,079	0,0199	0,0438	
Zn	mg/l	0,07	0,233	0,1217	0,2677	
Hg	mg/l	0	0,0025	0,0007	0,0015	
TC /100 ml		2,00E+09	1,00E+12	1,4091E+11	3,1E+11	
FC /100 ml		2,00E+08	2,00E+11	2,5922E+10	5,7029E+10	

<b>STATION : ST 4-U</b>		<b>YEAR:2000.</b>			
<b>TABLE A 6.1.51</b>					
INDICATOR OF QUALITY V=1.700.000 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n=9					
Effluent temperature	°C	7,1	20	15,14	
Sea temperature	°C	10	25	19,12	
Δt	°C	0,6	6,3	4,36	
pH		6,97	7,93	7,36	
Suspended matter - dry	mg/l	18	570	239,60	407,320
BOD5	mg/l	67,31	141,6	95,90	163,030
COD	mg/l	114,9	382	210,30	357,510
Total N -Kjeldal	mg/l	14,12	70,4	38,10	64,770
Amonium	mg/l	8,02	46,3	28,20	47,940
Nitrite	mg/l	0	0,015	0,002	0,003
Nitrate	mg/l	0,04	0,508	0,296	0,503
Total phosphate	mg/l	2,9	11,56	6,236	10,601
Phosphate	mg/l	1,76	8,44	4,633	7,877
LIST B : n=9					
Total oiliness	mg/l	0,576	48,82	11,631	19,772
Mineral oil	mg/l	0	0,592	0,117	0,199
Phenols	mg/l	0,012	0,092	0,045	0,076
Anionic detergents	mg/l	0,688	16,5	6,273	10,663
Total halogenated hydrocarbons	mg/l	0,00115	0,00467	0,003	0,005
Cd	mg/l	0,001	0,012	0,005	0,009
Pb	mg/l	0	0,03	0,014	0,024
Cr	mg/l	0,002	0,33	0,050	0,084
Zn	mg/l	0,0716	0,411	0,192	0,327
Hg	mg/l	0	0,00067	0,0003	0,0005
TC /100 ml		1,00E+09	5,60E+11	1,3978E+11	2,3762E+11
FC /100 ml		1,00E+09	2,30E+11	7,625E+10	1,2963E+11

STATION: OM 1 - U		YEAR: 2000.		TABLE A 6.1.52	
INDICATOR OF QUALITY V=350.000 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 1					
Temperature	°C	13,6	13,6	13,6	
Conductivity	µS/cm	5000	5000	5000	
pH		7,52	7,52	7,52	
Suspended matter - dry	mg/l	12	12	12	4,20
BOD5	mg/l	27,1	27,1	27,1	9,485
COD	mg/l	54,86	54,86	54,86	19,201
Total KjeldahN	mg/l	13,48	13,48	13,48	4,718
Amonium	mg/l	7,58	7,58	7,58	2,653
Total phosphate	mg/l	4	4	4	1,400
LIST B : n = 1					
Total oiliness	mg/l	1,031	1,031	1,031	0,3609
Mineral oil	mg/l	0	0	0	0,0000
Halogenated hydrocarbons	mg/l	0,00086	0,00086	0,00086	0,0003
Anionic detergents	mg/l	0,277	0,277	0,277	0,097
TC /100 ml		2,20E+11	2,20E+11	2,20E+11	7,7E+10
FC /100 ml		9,20E+10	9,20E+10	9,20E+10	3,22E+10

STATION: MA 1 - U		YEAR: 2000.		TABLE A 6.1.53	
INDICATOR OF QUALITY V=1,100.000 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n =3					
Conductivity	µS/cm	1300	2600	2000	
PH		7,38	7,82	7,64333	
Suspended matter - dry	mg/l	134	274	194,333	213,77
BOD5	mg/l	107,3	132,9	121,47	133,61
COD	mg/l	317,3	426,5	371,90	409,09
Total Kjeldah N	mg/l	65	297,2	147,867	162,6537
Amonium	mg/l	20,04	60,8	45,4467	49,99137
Nitrite	mg/l	0	0	0	0
Nitrate	mg/l	0	0,454	0,26533	0,2919
Total phosphate	mg/l	4,82	10,82	8,413	9,2547
Ortho-phosphate	mg/l	3,11	7,44	5,275	5,8025
LIST B : n =3					
Total oiliness	mg/l	0,113	12,665	4,580	5,0380
Mineral oil	mg/l	0	0,034	0,0113	0,0125
Halogenated hydrocarbons	mg/l	0,00301	0,0125	0,0063	0,0069
Anionic detergents	mg/l	0,54	1,92	1,1933	1,3127
TC /100 ml		3,10E+09	9,60E+11	3,90E+11	4,29E+11
FC/100 ml		2,40E+09	5,70E+11	2,10E+11	2,31E+11

STATION : BO 1 - U		YEAR: 2000.			TABLE A 6.1.54	
INDICATOR OF QUALITY V= 150.000 m3/year	unit	min	max	mean	Load of pollution t/year	
LIST A : n =3						
Temperature	°C	18	27	22		
Conductivity	µS/cm	780	1300	1020,0		
pH		6,95	7,4	7,203		
Suspended matter - dry	mg/l	212	562	344,0	51,60	
BOD5	mg/l	119,5	216,6	169,9	25,485	
COD	mg/l	341	668,2	531,7	79,755	
Total N -Kjeldal	mg/l	49,3	130,4	90,10	13,515	
Amonium	mg/l	27,4	104	68,07	10,210	
Nitrite	mg/l	0	0	0,0000	0,0000	
Nitrate	mg/l	0,208	9,5	3,4590	0,5189	
Total phosphate	mg/l	10	20,55	15,510	2,3265	
Ortho-phosphate	mg/l	5,82	17,26	11,913	1,7870	
LIST B : n = 3						
Total oiliness	mg/l	0,727	23,53	13,793	2,0690	
Mineral oil	mg/l	0	0	0,0000	0,0000	
Phenols	mg/l	0,03	0,076	0,0567	0,0085	
Anionic detergents	mg/l	6,7	10,5	8,150	1,223	
Halogenated hydrocarbons	mg/l				0,0000	
Cd	mg/l	0,005	0,0089	0,0063	0,0009	
Pb	mg/l	0,04	0,081	0,0537	0,0081	
Cr	mg/l	0,0092	0,011	0,0104	0,0016	
Zn	mg/l	0,1985	0,353	0,2515	0,0377	
Hg	mg/l	0,00011	0,00023	0,0002	0,0000	
TC /100 ml		1,00E+08	3,00E+12	1,00E+12	150000000000	
FC /100 ml		1,00E+08	8,70E+11	3,00E+11	450000000000	

STATION : HV 1 - U		YEAR: 2000.			TABLE A 6.1.55	
INDICATOR OF QUALITY V= 250.000 m3/year	unit	min	max	mean	Load of pollution t/year	
LIST A : n =1						
Temperature	°C	16	16	16		
pH		1600	1600	1600		
Conductivity	µS/cm	7,58	7,58	7,58		
Suspended matter - dry	mg/l	8	8	8	13,600	
BOD5	mg/l	75,18	75,18	75,18	127,806	
COD	mg/l	177,6	177,6	177,6	301,920	
Total N -Kjeldal	mg/l	28,7	28,7	28,7	48,790	
Amonium	mg/l	19,4	19,4	19,4	32,980	
Nitrite	mg/l	0	0	0	0,000	
Nitrate	mg/l	0,283	0,283	0,283	0,481	
Total phosphate	mg/l	6,74	6,74	6,74	11,458	
Phosphate	mg/l	3,62	3,62	3,62	6,154	
LIST B : n=1						
Total oiliness	mg/l	0,485	0,485	0,485	0,8245	
Mineral oil	mg/l	0	0	0	0,0000	
Phenols	mg/l	0,04	0,04	0,04	0,0680	
Anionic detergents	mg/l	1,088	1,088	1,088	1,8496	
Halogenated hydrocarbons	mg/l	0,002128	0,002128	0,002128	0,0036	
Cd	mg/l	0,00531	0,00531	0,00531	0,0090	
Pb	mg/l	0,0452	0,0452	0,0452	0,0768	
Cr	mg/l	0,0286	0,0286	0,0286	0,0486	
Zn	mg/l	0,0789	0,0789	0,0789	0,1341	
Hg	mg/l	0	0	0	0,0000	
TC /100 ml		4E+10	4E+10	4E+10	6,8E+10	
FC /100 ml		1E+10	1E+10	1E+10	1,7E+10	

**INDUSTRIAL EFFLUENTS**

<b>STATION : TR 2 - I</b>		<b>YEAR:2000. TABLE B</b>			
		<b>6.1.63</b>			
<b>INDICATOR OF QUALITY</b> V= 575404 m3/year	<b>unit</b>	<b>min</b>	<b>max</b>	<b>mean</b>	<b>Load of pollution t/year</b>
<b>LIST A : n =9</b>					
Effluent temperature	°C	21	23,4	22,07	
pH		7,23	9,14	7,73	
Suspended matter - dry	mg/l	0	7	1	0,77
BOD5	mg/l	0,05	2,24	0,940	0,5409
COD	mg/l	5,48	23,68	14,150	8,1420
Total N -Kjeldal	mg/l	0,044	0,85	0,270	0,1554
<b>LIST B : n =9</b>					
Mn	mg/l	0,005	0,01	0,010	0,0058
Fe	mg/l	0,147	0,233	0,180	0,1036
Al	mg/l	0,12	0,15	0,140	0,0806
Total oiliness	mg/l	0	2,005	0,800	0,4603
Mineral oil	mg/l	0	0,013	0,000	0,0000
Total aromatic hydrocarbons	mg/l				0,0000

<b>STATION: TR 3 - I</b>		<b>YEAR: 2000.</b>		<b>TABLE B 6.1.64</b>	
INDICATOR OF QUALITY V= 63080 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n =16					
Effluent temperature	°C	14,38	16,75	15,40	
Sea temperature	°C	10,5	10,5	10,50	
Δt	°C	3,88	6,25	4,90	
pH		8,49	9,37	8,96	
Total evaporable residue - dry	mg/l	459	537	501,5	3,1635
Total evaporable residue - heated	mg/l	180	214	200,3	1,2635
Total suspended matter - dry	mg/l	10	86	40,4	0,2548
Total suspended matter- heated	mg/l	0	54	21,30	0,1344
Dissolved oxygen	mg/l	1,632	1,952	1,82	0,0115
BOD5	mg/l	13,4	95	50,4	0,3179
COD	mg/l	90,68	188,9	132,6	0,8364
Total N -Kjeldal	mg/l	30,5	60,5	42,7	0,2694
Amonium	mg/l	5,2	8,28	6,4	0,0404
Nitrite	mg/l	0,027	0,101	0,059	0,0004
Nitrate	mg/l	0,582	0,87	0,708	0,0045
Total phosphate	mg/l	1,04	3,14	2,04	0,0129
Ortho-phosphate	mg/l	0,98	2,74	1,90	0,0120
LIST B : n = 16					
Total oiliness	mg/l	0,481	5,497	2,48	0,0156
Mineral oil	mg/l	0,015	1,179	0,400	0,0025
Anionic detergents	mg/l	0,293	11,625	4,53	0,0286
TC / 100 ml		2,20E+07	3,80E+09	1,60E+09	10092800
FC / 100 ml		1,80E+07	1,90E+09	9,00E+08	5677200

STATION : KA 3 - I		YEAR: 2000.		TABLE B 6.1.65	
INDICATOR OF QUALITY V= 44400 m <sup>3</sup> /year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 24					
Sea temperature	°C	13	24,5	18,67	
Effluent temperature	°C	12,9	19	15,54	
Δt	°C	0,5	6,5	3,94	
pH		7,47	7,74	7,56167	
Suspended matter - dry	mg/l	0	22	4	0,1656
BOD5	mg/l	0,14	4,45	1,904	0,0845
COD	mg/l	3,14	68,3	24,89	1,1049
Total N -Kjeldal	mg/l	0,179	4,05	0,9413	0,0418
Amonium	mg/l	0,064	0,193	0,1263	0,0056
Nitrite	mg/l	0	0,018	0,0071	0,0003
Nitrate	mg/l	0,026	0,974	0,4738	0,0210
Total phosphate	mg/l	0,058	0,653	0,1413	0,0063
Ortho-phosphate	mg/l	0,024	0,129	0,0528	0,0023
LIST B : n =24					
Total oiliness	mg/l	0,03	1,702	0,3686	0,0164
Mineral oil	mg/l	0	0,178	0,0124	0,0005
TC/100 ml		0	3000000	162963	7235,6

<b>STATION SO 3 - I</b>		<b>YEAR: 2000. TABLE B 6.1.66</b>			
INDICATOR OF QUALITY V= 239566 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n - 24					
Sea temperature	°C	13,5	23	19,17	
Effluent temperature	°C	16,3	24,3	20,57	
Δt	°C	0	8,5	3,56	
pH		4,97	10,19	7,01	
Suspended matter - dry	mg/l	2	1210	428	102,53
BOD5	mg/l	20,79	598	202,4	48,49
COD	mg/l	137,4	5260,4	1572,1	376,62
Total N -Kjeldal	mg/l	2,24	110,6	33,779	8,0923
Amonium	mg/l	0,02	39,6	4,555	1,0912
Nitrite	mg/l	0	0,25	0,041	0,0098
Nitrate	mg/l	0,011	0,683	0,265	0,0635
Total phosphate	mg/l	1,52	52,2	15,058	3,6074
LIST B : n = 24					
Total oiliness	mg/l	0,747	17,448	4,666	1,1178
Mineral oil	mg/l	0	0	0,000	0,0000
Phenols	mg/l	0,006	0,034	0,015	0,0036
Anionic detergents	mg/l	0	4,6	0,900	0,2156
TC /100 ml		1,00E+09	2,64E+12	322819166667	7,7336E+10
FC /100 ml		100000000	8,40E+11	89147916667	2,1357E+10

<b>STATION : SO 4 – I</b>					
<b>YEAR: 2000.      TABLE 6.1.67</b>					
INDICATOR OF QUALITY V= 149850 m3/year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 24					
Temperature	°C	11,500	25	18,7	
pH		7,870	12,57	10,54	
Suspended matter - dry	mg/l	5,000	790	99	14,835
BOD5	mg/l	0,740	30,86	8,141	1,2199
COD	mg/l	5,650	161,51	36,260	5,4336
Total phosphate	mg/l	0,000	0,64	0,247	0,0370
Ortho-phosphate	mg/l	0,000	0,32	0,076	0,0114
LIST B : n = 24					
Total oiliness	mg/l	0,098	3,087	0,945	0,1416
Mineral oil	mg/l	0,000	0,513	0,067	0,0100
Anionic detergents	mg/l	0,053	0,98	0,277	0,0415
TC /100 ml		0,000	4E+11	2E+10	2997000000
FC/100 ml		0,000	2E+10	3E+09	449550000

<b>STATION : SO 5 - I</b>		<b>YEAR: 2000.</b>		<b>TABLE B 6.1.68</b>	
INDICATOR OF QUALITY V= 69539 m <sup>3</sup> /year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 24					
Effluent temperature	°C	6,8	21,4	16,30	
Sea temperature	°C	12	24,6	19,03	
Δt	°C	0,4	5,2	2,92	
pH		6,78	7,19	7,05	
Suspended matter - dry	mg/l	0	111	27	1,86573
BOD5	mg/l	4,95	59,6	21,76	1,51317
COD	mg/l	22,9	270,1	115,01	7,99768
LIST B : n = 24					
Hg	mg/l	0	0,0019	0,00000	0,00000
Pb	mg/l	0	0,141	0,0400	0,00278
Cd	mg/l	0	0,0084	0,0000	0,00000
PAH	mg/l				
Total oiliness	mg/l	0,075	43,4	6,9300	0,48191
Mineral oil	mg/l	0	2,197	0,3200	0,02225
Phenols	mg/l	0	0,104	0,0400	0,00278
TC /100 ml		400	2,00E+11	2,1852E+10	1519540645
FC/100 ml		0	2,00E+11	1,5498E+10	1077710236

STATION : OM 3 – I		YEAR: 2000.				TABLE B 6.1.69
INDICATOR OF QUALITY V= 81184 m <sup>3</sup> /year	unit	min	max	mean	Load of pollution t/year	
LIST A : n = 7						
Temperature	°C	22,4	29,7	24,22		
Temperature of river Cetina	°C	12,3	17,3	13,90		
Δt	°C	9,4	12,4	10,32		
pH		7,41	7,67	7,54		
Suspended matter	mg/l	62	268	119	9,6609	
BOD5	mg/l	42,5	140,57	100,3	8,143	
COD	mg/l	394,1	606,5	464,8	37,734	
Total N -Kjeldal	mg/l	13,48	25,12	18,41	1,4946	
Amonium	mg/l	6,44	10,44	8,44	0,6852	
Nitrite	mg/l					
Nitrate	mg/l	0,173	9,5	2,983	0,2422	
Total phosphate	mg/l	4,12	13,6	8,371	0,6796	
Ortho-phosphate	mg/l	0,3	1,244	0,633	0,0514	
LIST B : n = 7						
Total oiliness	mg/l	2,517	64,712	26,821	2,1774	
Mineral oil	mg/l	0,118	7,392	1,793	0,1456	
Phenols	mg/l	0,018	0,05	0,036	0,0029	
Anionic detergents	mg/l	1,64	6,05	3,026	0,2457	
Halogenated hydrocarbons	mg/l	0,0027	0,009015	0,0057	0,0005	
Cr	mg/l	0,005	0,058	0,0217	0,0018	
TC/100 ml		2,00E+08	3,20E+11	6,2014E+10	5034567771	
FC /100 ml		1,50E+08	1,10E+11	3,4479E+10	2799108343	

STATION : OM 4 – I		YEAR: 2000. TABLE B 6.1.70			
INDICATOR OF QUALITY V= 40.111 m <sup>3</sup> /year	unit	min	max	mean	Load of pollution t/year
LIST A : n = 18					
Effluent temperature	°C	9,3	22,6	17,4	
Sea temperature	°C	8,1	18,3	14,5	
Δt	°C	0,6	5,5	2,9	
pH		7,1	7,96	7,50	
Suspended matter - dry	mg/l	1	122	30,40	1,2194
BOD5	mg/l	0,445	18,99	5,144	0,2063
COD	mg/l	7,11	238,5	55,65	2,2323
Total Kjeldhal N	mg/l	0,122	16,46	1,8174	0,0729
Total phosphate	mg/l	0	30,2	2,7563	0,1106
LIST B : n = 18					
Total oiliness	mg/l	0	4,231	1,0009	0,0401
Mineral oil	mg/l	0	0,224	0,0533	0,0021
Phenols	mg/l	0,014	0,046	0,0188	0,0008
Anionic detergents	mg/l	0,039	13,8	2,0251	0,0812
Fe	mg/l	0,489	5,83	2,3208	0,0931
Zn	mg/l	0,0481	0,418	0,1711	0,0069
Al	mg/l	0,12	1,15	0,4583	0,0184
Cr III	mg/l	0	0,394	0,0825	0,0033
Cr VI	mg/l	0,00147	0,202	0,0439	0,0018

ESTUARIES STATION: CE1		YEAR: 2000.			TABLE C
		6.1.74			
INDICATOR OF QUALITY Q= 217 m3/s n=12	unit	min	max	mean	Load of pollution t/year
Water temperature	°C	6,9	21,8	14,3	
Turbidity	°SiO2	2	12	7	
pH		7,63	8,33	7,92	
Conductivity	µS/cm	346	6720	2175	
BOD5	mg/l	0,6	4,6	2,1	14450,2
Oxygen consumption	mg/l	6	27,7	14,4	99087,4
Total suspended matter	mg/l	0	1	0,267	1837,2
Evaporable residue	mg/l	240,6	4216	1207	8305451,5
Free CO2	mg/l	7	9,6	8,4	57801,0
Dissolved oxygen	mg/l	6,1	11,7	9,68	66608,8
% saturation		61,3	122	93,8	
Total N	mg/l	0,129	0,713	0,34	2339,6
Proteidic - N	mg/l	0,000	0,216	0,089	612,4
Amonium	mg/l	0,006	0,231	0,051	350,9
Nitrite	mg/l	0,000	0,007	0,002	13,762
Nitrate	mg/l	0,276	1,166	0,574	3949,7
Chloride	mg/l	16	2500	608	4183690,6
Sulphate	mg/l	18,8	270	92,7	637875,2
Total P	mg/l	0,002	0,202	0,042	289,0
Total hardness - CaCO3	mg/l	208	873	365	2511590,6
Total alkalinity - CaCO3	mg/l	175	199	186	1279879,0
Anionic detergents	mg/l	0,000	0,01	0,0034	23,40
Phenols	mg/l	0,000	0,006	0,002	13,762
Total oiliness	mg/l	0,003	0,136	0,0529	364,0
Mineral oil	mg/l	0,000	0,051	0,006	41,3
Fe	mg/l	0,0070	0,055	0,0232	159,6
Zn	mg/l	0,0006	0,0227	0,0133	91,5
Cu	mg/l	0,0000	0,019	0,0053	36,5
Pb	mg/l	0,0000	0,223	0,0496	341,3
Mn	mg/l	0,0006	0,0166	0,005	34,4
KCr	mg/l	0,0000	0,016	0,0047	32,3
Cd	mg/l	0,00044	0,061	0,0127	87,4
Hg	mg/l	0	0,0001	0,00006	0,4
MPN coli/100 ml		11	3500	1650	11353766
MPN E.coli/100 ml		0	1800	679	4672247
MPN s.faecalis/100 ml					
Total organo-phosphoric pesticides	µg/l	0,0000	0,0000	0,0000	0,0000
Total chlorated pesticides	µg/l	0,0016	0,0266	0,0108	74,3

This national report was made by a Croatian team led by Dr. Rocco Andricevic, consultant of Plan Bleu, under the umbrella of Ministry of Environment and Physical Planning, with the technical assistance of Plan Bleu and within the framework of the project: Promotion of the indicators for Sustainable Development in the Mediterranean Coastal Regions co-funded by the European Commission Environment Directorate-General (ENV. E.3.4 Développement et Environnement B7-8110) and the Mediterranean Action Plan.

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