

## **ECONOMIC-GEOGRAPHIC ANALYSIS OF DIFFERENTIATED DEVELOPMENT IN CROATIAN COASTAL REGION**

**Zdenko Braičić**

Ph.D., Assistant Professor  
Faculty of Teacher Education  
University of Zagreb  
Savska 77, 10000 Zagreb, Croatia  
e-mail: zdenko.braicic@ufzg.hr

**Jelena Lončar**

Ph.D., Senior Assistant  
Faculty of Science  
Department of geography  
University of Zagreb  
Marulićev trg 19/II, 10 000 Zagreb, Croatia  
e-mail: jloncar@geog.pmf.hr

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### **Abstract**

#### **Economic-Geographic Analysis of Differentiated Development in Croatian Coastal Region**

The main characteristic of the current development process in Republic of Croatia's coastal area is its unevenness. While former studies on differences in regional development have mainly discussed inequalities in terms of coast/inland/islands, this study analyzes a differentiated economic development along the Croatian coast, not including the islands. Basic analytical spatial units are cities and municipalities that can be classified into seven major coastal spatial units (sub-regions): Istria, Rijeka, Sub-Velebit, Zadar, Šibenik, Split and Dubrovnik-Neretva coastal area. In order to rate the level of development and determine differences in economic activities of coastal spatial region, several economic indicators have been taken into account. The results have confirmed that Istria and Rijeka coastal subregions are the most prosperous parts of Croatian coast. The economic orientation of cities and municipalities on the coast has been determined with the index of specialization.

### **Key words**

Coastal spatial units, economic development, indicators, functional specialization, Croatia

## **1. Introduction**

The main characteristic of the current development process in Republic of Croatia's coastal region is its unevenness. Unbalanced development trends have led to great disproportions in the level of development of cities and villages, coast and hinterland, north and the south (Fredotović 1992), which is why there is no homogeneity or development system in the coastal region (Šimunović 2007a, 29). Although the differences have existed before, it is evident that they were intensified while abandoning the socialist system and restructuring the overall economy (Feletar and Glamuzina 2002). Regional disparity is reflected, among other things, in "the excessive accumulation of people and goods on the coastal line and emigration from islands and littoral areas" (Šimunović 2007b, 171).

The coastal areas is characterized by intensive human activities, rapid population growth, exceptional interdependence of spatial, biological, cultural, economic and other processes, the existence of several natural systems (marine, continental, transitional, river) and the fact that it is a very ecologically sensitive area (Trumbić 2004). Adriatic area in a favorable economic, political and development framework, this space can be economically activated the fastest and in the most profitable way and therefore mediate in a rapid and efficient involvement of Croatia in global development (Kalogjera 1994, 60).

While former studies on differences in regional development have mainly discussed inequalities in terms of coast/inland/islands, this study analyzes a differentiated economic development along the Croatian coast, not including the islands. According to 2011 census, the coastal area (without islands) is populated by one million inhabitants or 23.7% of Croatian population (Croatian Bureau of Statistics [CBS], 2013). The same area also holds almost a quarter of total employment in legal entities (24.1%) and a slightly smaller share of total unemployment (22.8%). Almost 90% of tourism takes place in the coastal area, whether it is related to natural attractiveness and the ecological component, whether to recreational purposes and leisure (Šimičić 1994, 35). Today the situation in tourism industry is such that it takes a strategic commitment to raise the general level of quality of all services that make a certain tourist product recognizable and valuable on the market. In strategic orientation, a great importance needs to be given to a process of supply diversification (Šimičić 1994, 38). And the industry was here of great importance, especially twenty years ago when it was the main economic activity and the engine of economic development. Due to technical and technological advance in maritime traffic, transport by sea has become cost-effective and enabled cheap transport of mass cargo to and from the biggest and greatest distances. The concept of coastal industry development is based on this. However, the industry in the Mediterranean, including the Croatian coastal zone, has been based on processing of local raw materials (Petrić 1992).

Based on these facts, the authors of this study have set up two hypotheses to be further confirmed or dismissed in the research: (1) some parts of Croatian coastal region are more economically developed than others and (2) some parts of Croatian coastal area (cities and municipalities) are more or less specialized in certain areas of economic activity.

## **2. Theoretical background**

In recent years, region has been "rediscovered" as an important source of competitive advantages and organization of global space economy (Dunning 2007). The European Union has recognized very early the importance of regional policies. EU Regional Policy is the most important instrument for achieving cohesion and implies adjusting to new developments infrastructure development, reducing unemployment, stimulating industry and other forms of economic activity to improve competitiveness of local economy. As a part of EU, Croatia also became a beneficiary of these policies and programs. But, projects and programs that the EU offers to member states for regional development often result in the weakness in their implementation which is related not only to inadequate institutional and managerial capacities but also to difficulties and lack of adequate project documentation necessary for implementation of EU funded projects (Mirić 2009).

Cities, towns, countries and all local entities in global economy have the challenge and opportunity of crafting their own economic activities. This is true for the poorest as well as wealthiest localities (Blakely and Leigh 2009). But, from territorial point of view, only limited number of localities and regions seem to be reaping benefits from new opportunities provided by globalization. The „winning regions" can be divided into three categories: large metropolitan regions (financial, business, real estate and insurance services), intermediate industrial regions (these types of areas often combine labor costs advantages with respect to core areas making themselves attractive locations for new industrial investment) and tourist regions (tourist industry) (Pike Rodriguez-Pose and Tomaney 2006). Regional economics, in that way, helps to determine where different types of economic activity will prosper (Edwards 2007). But, local economic development should be distinguished from economic growth (Blakely and Leigh 2009). The new regionalism ideas that are driven from the model of local economic growth that draws from "new industrial spaces", "learning regions", "innovative milieu", and "regional innovation systems", have significant limitations. They do not measure economic growth or decline, but simply recognize "success"(Ersoy and Taylor 2012).

For regions to be successful, the importance of knowledge in today modern economies for achieving development is inevitable. Numerous studies clearly indicate that even a moderate increase in the sphere of knowledge in a society can significantly increase the GDP. It can also bring greater investment in scientific research, and more pronounced general development of society. The EU has long been aware of this, therefore it is clear why the creation of knowledge society has been chosen as a priority in economic development (Mirić 2009).

## **3. Data and methodological framework**

Development is profoundly a geographical phenomenon. Any definition of local and regional development requires an appreciation of fundamentally geographical concepts of space, territory, place and scale. Local and regional territories are dynamic and changing over time (Pike Rodriguez-Pose and Tomaney 2006). Local growth is, as practice showed, affected by location decisions (Blair and Carroll 2009). Taking into account different approaches in separating coastal areas in the world, Croatian coastal region discussed in this study includes administrative cities and municipalities whose territory extends along the coastline as well as cities and municipalities whose capital is up to 10 km away from the coast. These

administrative cities and municipalities are basic analytical spatial units classified into seven major coastal spatial units: Istria, Rijeka, Sub-Velebit, Zadar, Šibenik, Split and Dubrovnik- Neretva coastal area (Fig. 1).

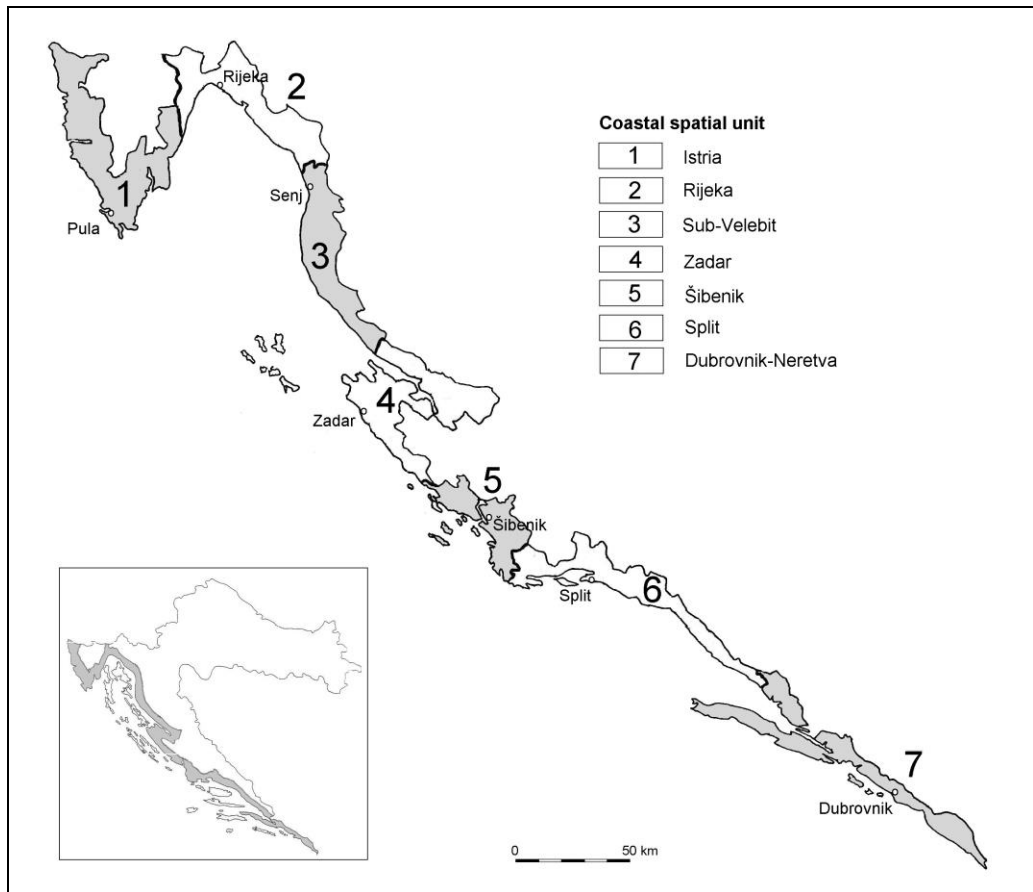


Fig. 1: The explored area - Croatian coastal region.

Different indicators can be used to identify differences in economic activities of spatial units, or quantitatively and qualitatively identify and document spatial disparities. Kulke (2004) outlines that economic and geographical considerations can be explored by the following groups of indicators: a) economic indicators (describing the situation and dynamics of economic development in spatial units, such as income per capita, proportion of economic sectors, rate of unemployment, export quotas), b) social indicators (describing personal living conditions of spatial units' inhabitants, such as life expectancy, infant mortality, rate of illiteracy, number of physicians per 1000 inhabitants, access to drinking water) and c) ecological and economic indicators (describing the degree of using the environmental volume of consumption of natural resources). Since the population is a fundamental agent in economic growth and a factor of regional structure transformation, Croatian geographical research of regional development often use socio-demographic indicators (Nejašmić 2001; Pejnović 2004; Živić and Pokos 2005). In analyzing regional disparities in Croatia, Sić (2003) relies on three groups of indicators:

demographic (layout and development of population), economic (number of business entities, business income, foreign direct investment, unemployment rate, etc.) and indicators of population supply (degree of automobilization, quality of telephone network, etc.).

In order to rate the level of development and determine differences in economic activities of coastal spatial region, several economic indicators have been taken into account: a number of employees per 100 inhabitants, percentage of industrial workers, percentage of tourism workers in total number of employees, a number of unemployed per 100 inhabitants, export per capita and budget revenue of cities/municipalities per capita). Due to the unavailability of data on employment in sole proprietorships and free-lancing activities on a city/municipality level, the calculation of all indicators is based on number of employees in legal entities. The industrial workers are considered to be those employed in manufacturing activity, while tourism workers are considered to be those working in activities of providing accommodation and food service activities, which are core businesses and carriers of tourism development. To determine the economic orientation of coastal administrative-territorial units toward some economic activities, the index of specialization was used, and had indicated whether, and to what extent are certain parts of coast specialized in certain economic activities (manufacturing, tourism). The analysis of differentiated development of the coastal zone refers to the year of 2011 (structural analysis) as this was the year of the last Census with newest data in Croatia. Data for the calculation were taken from annual reports of official statistics, and some of the data were obtained at the Institute of public Finance. The obtained results are presented in tables and maps, and have pointed out to some parts of Croatian coast with below- or above- average indicators of economic development, as well as differences in economic activity.

## **4. Results**

### **4.1 Indicators of differentiated economic development of the coastal region**

Development is a complex phenomenon which primarily depends on the market, business environment, availability and interpendance of production factors, with an appropriate combination of instruments of economy (Mirić 2009). Regional government need to offer mobile investors a unique set of spatially fixed competitive advantage which are either customized to their individual needs or are not easily imitated by other regional governments (Dunning 2007).

In order to identify economically more developed parts of the coast, as well as those with less favorable economic characteristics, the differentiated development has been comparatively analyzed and displayed on two levels of economic and geographical considerations - at a level of larger spatial of the coastal belt and at local levels (Tab. 1).

With a developed function of labor, Split and Rijeka are the leading urban centers at the Croatian part of the Adriatic coast, with a result being that their coastal units hold most of the employees (work places). If we place into a relation the number of employees and the number of inhabitants, which is the first analyzed indicator, it is most favorable in Rijeka and Istria, and least favorable in Sub-Velebit coastal region. It should be noted that there are certain specifics of the Sub-Velebit coast compared to other coastal units that need to be taken into consideration when interpreting the data: it is an area of less favorable natural and geographical

conditions in which reside only a few thousands of people, there are only a few urban centers, which is why there are not any significant economic activities or work places.

Tab. 1: Chosen indicators of economic development of spatial units in Croatian coastal region in 2011.

Indicator	Coastal area						Coastal area total	Republic of Croatia
	Istria	Rijeka	Sub-Velebit	Zadar	Šibenik	Split		
Number of inhabitants	170,501	231,503	8,099	129,260	66,940	325,605	1,016,790	4,284,889
%	16.8	22.8	0.8	12.7	6.6	32.0	100.0	
Number of employees	48,950	68,204	1,374	27,516	15,196	80,854	263,825	1,078,011
%	18.6	25.9	0.5	10.4	5.8	30.6	100.0	
Number of employees per 100 inhabitants	28.7	29.5	17.0	21.3	22.7	24.8	25.5	25.2
Number of industrial employees	9,869	11,197	233	2,401	2,181	14,058	40,600	206,823
% share of industrial employees in total number of employees	20.2	16.4	16.9	8.7	14.4	17.4	15.4	19.2
Number of employees in tourism	5,194	3,454	50	1,141	866	3,178	17,082	34,091
% share of employees in tourism in total number of employees	10.6	5.1	3.6	4.1	5.7	3.9	6.5	3.2
Number of unemployed people	7,633	15,061	652	8,635	4,461	30,380	71,857	315,408
%	10.6	21.0	0.9	12.0	6.2	42.3	100.0	
Number of unemployed people per 100 inhabitants	4.5	6.5	8.1	6.7	6.7	9.3	7.1	7.4
Export per capita (in HRK)	36,705.5	14,686.7	1,626.3	6,391.8	21,685.1	12,745.5	15,911.7	16,624.5
Budget revenue per capita (in HRK)	5,874.5	4,717.6	3,676.4	3,171.1	3,241.1	3,425.1	4,185.7	3,713.7

Sources: Croatian Bureau of Statistics [CBS] 2012a, 2012b, 2013; Croatian Employment Service [CES] 2012; Ministry of Finance [MF] 2013; own analysis.

The analysis at a local level has shown that a more favorable ratio of the number of employees (at legal entities) and the number of inhabitants is a characteristic of cities and municipalities along the western and eastern coast of Istria (see Fig. 2). At the rest of the coast, this ratio is more favorable in macro-regional and regional centers (Split, Rijeka, Pula, Zadar, Šibenik, Dubrovnik), and their administrative-territorial units and some suburban municipalities (such as Zemunik Donji near Zadar, Bakar near Rijeka, etc.), while in the south, due to advanced harbor functions, the city of Ploče stands out. Those are the administrative-territorial units that stand out with higher concentration of economic activities and work places. On the other hand, less than 5 employees per 100 inhabitants are recorded in municipalities Marčana (Istrian coast), Bibinje, Galovac, Jasenice, Novigrad and Ražanac (Zadar coast), Dugi Rat in Split and Slivno in Dubrovnik coastal area. These are the municipalities that lack a significant economic base, which is why their existence is questionable.

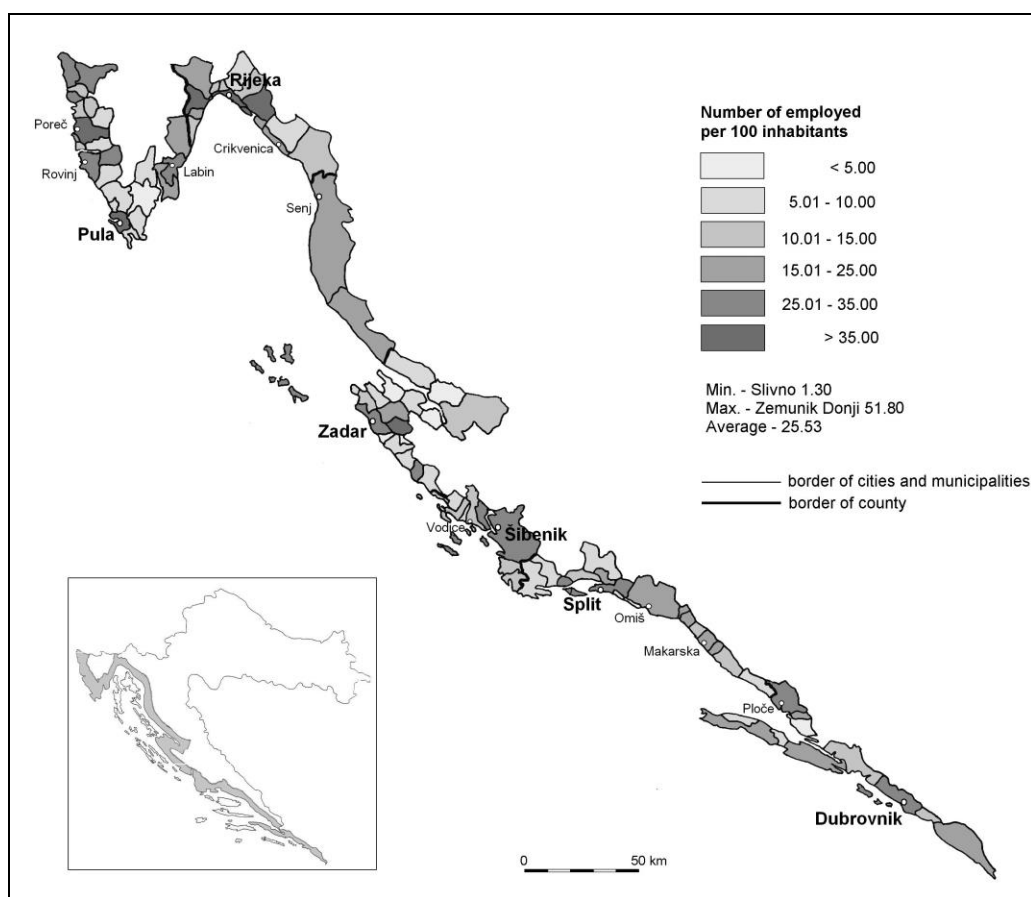


Fig. 2: Administrative cities and municipalities in Croatian coastal region according to the number of employees in legal entities per 100 inhabitants in 2011.  
Sources: CBS 2012a; CBS 2013.

Since tourism and industry are significant factors of socio- geographic changes in coastal part of Croatia, below are isolated the cities and municipalities that stand

out with significant proportion of them (Tab. 2). Cities and municipalities Raša, Kraljevica, Vrsi and Poličnik have more than 50% of workers employed in manufacturing industry. This is supported by the fact that cities which are also regional centers develop tertiary and quaternary activities, while middle-sized cities are more oriented to secondary and tertiary activities. Smaller cities adapt to the needs of such environment, which is why their structure takes on characteristics of that area (Šimunović et al. 2011). On the other hand, a high proportion of workers in tourism is noted in cities and municipalities of Makarska Riviera (within the Split coastal area), especially Brela, Tučepi and Podgora where tourism has become a backbone of life (Blažević and Pepeonik 1996, 179-180). Since among the ten highly industrial municipalities there are no prominently touristic, it is clear that administrative-territorial units with a high share of workers in industry typically have smaller shares of workers in tourism.

Tab. 2: Administrative cities and municipalities in the coastal region with largest shares (%) of workers in manufacturing industry and tourism in 2011.

Manufacturing industry			Tourism		
Municipality/ City	Coastal area	% workers in industry	Municipality/ City	Coastal area	% workers in tourism
Raša	Istria	73.1	Brela	Split	64.5
Kraljevica	Rijeka	62.7	Tučepi	Split	63.6
Vrsi	Zadar	55.8	Podgora	Split	60.2
Poličnik	Zadar	53.0	Seget	Split	58.3
Trogir	Split	47.7	Tar-Vabriga	Istria	47.8
Marina	Split	46.5	Jasenice	Zadar	44.8
Kostrena	Rijeka	44.3	Gradac	Split	39.4
Klis	Split	39.3	Mošćenička Draga	Rijeka	38.4
Bakar	Rijeka	35.3	Nin	Zadar	37.6
Vodnjan	Istria	33.1	Podstrana	Split	34.5

Source: CBS 2012a; own analysis.

High shares of workers in manufacturing industry in some administrative-territorial units are not necessarily a reflection of a high number of employees. Only a dozen cities and municipalities at the coast contain large industrial centers with more than 1,000 industrial work places (Tab. 3). In Istria coast, more than a 1,000 of workers in manufacturing industry are situated in Pula and Labin. Pula is known by a very developed shipbuilding activity, electrical, metal and building materials industry, glass processing, etc. and Labin by mechanical engineering, metal and textile industry. With 5,055 of workers in manufacturing industry, Pula is, after Split and Rijeka, the third largest city of the coastal region, considering the number of industrial work force.

In Rijeka coastal area, units with more than a thousand industrial workers are Rijeka and Bakar (and until recently Kostrena). In Bakar, industry has developed significantly during the second half of the 20th century, due to a lack of space in the narrow Rijeka city area. The remaining Bakar's industry is concentrated in industrial-commercial zone Kukuljanovo (where there are more and more shopping malls and less and less industries), and in Kostrena in the location of Urinj. Although many factories have closed, in 2011 there were still 6,837 industrial workers employed in Rijeka, mainly in shipbuilding.

Toward the south, industrial activity is lower, especially in the Sub-Velebit area (where it is almost nonexistent), but also in Zadar and Šibenik coastal area. Since many industries have been shut down, and partly since it is located outside of the



narrow city area, there are only 1,633 industrial workers in Zadar (2011), working mainly in food industry. Chemical, metal and tobacco industries have mostly disappeared from the economic structure of the city. On the other hand, many entrepreneurial zones have been formed in the suburban municipality of Poličnik in the past several years; there is many Zadar firms situated. So we can say that business development is an essential component of local economic development planning because of creation, attraction and retention of business activities that build and maintain a healthy local economy. Many industrial capacities of Šibenik city have disappeared during the economic transition, although we can still find some remains of metal industry that used to be a symbol of urban economy.

Tab. 3: Administrative cities and municipalities of the coastal region with a largest number of workers in manufacturing industry and tourism in 2011.

Manufacturing industry			Tourism		
Municipality/City	Coastal area	Number of employees	Municipality/City	Coastal area	Number of employees
Split	Split	8,244	Dubrovnik	Dubrovnik-Neretva	2,376
Rijeka	Rijeka	6,837	Opatija	Rijeka	1,313
Pula	Istria	5,055	Split	Split	1,311
Šibenik	Šibenik	1,963	Poreč	Istria	1,308
Trogir	Split	1,932	Rijeka	Rijeka	1,188
Zadar	Zadar	1,633	Rovinj	Istria	1,093
Kaštela	Split	1,499	Umag	Istria	845
Solin	Split	1,280	Pula	Istria	715
Bakar	Rijeka	1,137	Zadar	Zadar	705
Labin	Istria	1,032	Konavle	Dubrovnik-Neretva	420

Source: CBS 2012a; own analysis.

Despite the omnipresent deindustrialization and decline in the function of labor, manufacturing industry is still an important element in the economic structure of Split coastal area. Split is, according to number of industrial workers (8,244), a leading industrial center of Croatian coastal region. After the World War II, Split has developed economic and non-economic functions that made it a regional center of Dalmatia (Klempić 2004), but today, because the labor function is weakening and tertiary and quaternary activities in other larger cities in south Croatia are strengthening, due to a new administrative-territorial organization and other reasons, its great gravitational influence has been significantly reduced and narrowed. There are more than 1,000 industrial workers in other neighbouring towns, such as Trogir, Kaštela and Solin. But, monopolies can be a problem at local level even in industries that are competitive at the national level (Blair and Carroll 2009).

A measure for unemployment was the ratio of the number of unemployed and a number of inhabitants (Fig. 3). While the situation in Split is very negative, in Istria there are much better circumstances. One can say that this situation is partially a consequence of Istria's special position that is more favorable compared to some other parts of Croatia, especially since Croatia is now getting more close to Europe (European Union) and neighboring labor markets (Slovenia and Italy). A relatively favorable ratio of the number of unemployed and total number of inhabitants can be seen in a number of cities and municipalities in the south of Croatia, where tourism is an important factor in lowering unemployment. Although some studies outline that Zadar, thanks to significant investment in infrastructure and construction of the

highway that connects it with Zagreb and Split, has become an important economic and social center after decades of stagnation (Klempić Bogadi and Podgorelec 2009), we have to note that Zadar and Split are areas with most municipalities with the most unfavorable ratio of the number of unemployed and number of inhabitants.

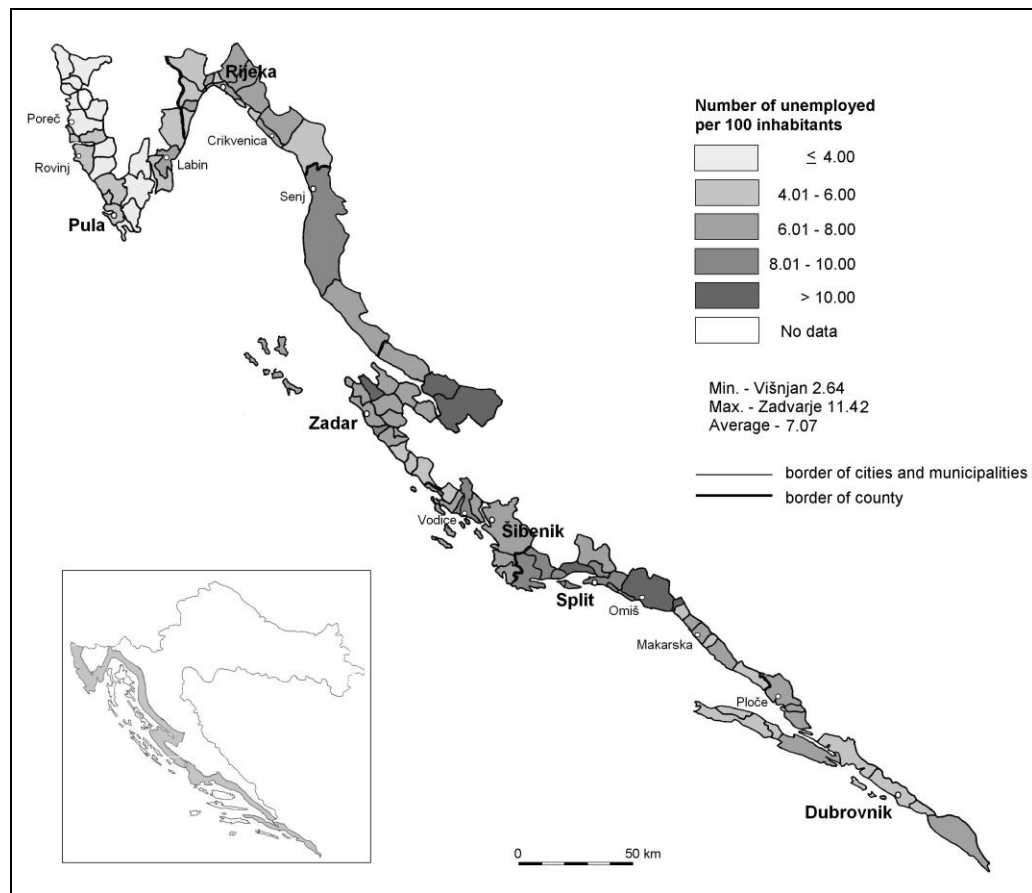


Fig. 3: Administrative cities and municipalities of Croatia coastal region according to the number of unemployed per 100 inhabitants in 2011.

Source: CES 2012.

Indicators of economic unevenness in the coastal region were export per capita and budget revenue from export (of cities and municipalities) per capita (see Tab. 4). Since manufacturing industry is the main exporter of goods, data on export of specific spatial units indicate the level of industrial development and every increase and decrease in industrial production reflects on export (Teodorović 2000). Thanks to a more developed manufacturing industry, export per capita in Istria is several times greater than in some other coastal units. The table below shows ten local units with the highest export per capita, and it is clear that most of them are located in the Istria coastal area. When it comes to budget revenue from exports, which is the next analyzed indicator, the situation is similar. Local units in Istria have the least difficulty in bringing budget revenue, while on the other hand, there is a considerable number of local units in the coastal zone that have brought less than

2,000 HRK per capita! Most of them are situated in Zadar area, but there are some on other parts of the coast. Therefore, according to the ability to collect revenue, local units vary greatly, and export revenue per capita is also an indicator of their fiscal capacity.

Tab. 4: Administrative cities and municipalities of the coastal region with largest export and budget revenue per capita in 2011.

Export per capita			Original budget revenue per capita		
Municipality/ City	Coastal area	Amount in HRK*	Municipality/City	Coastal region	Amount in HRK*
Poličnik	Zadar	107,324	Novigrad	Istria	13,708
Kršan	Istria	98,642	Funtana	Istria	12,539
Labin	Istria	79,806	Kostrena	Rijeka	9,662
Novigrad	Istria	72,972	Bale	Istria	9,655
Pula	Istria	57,681	Tar-Vabriga	Istria	9,072
Buje	Istria	48,548	Karlobag	Sub-Velebit	8,744
Trogir	Split	41,828	Vrsar	Istria	8,110
Bakar	Rijeka	40,184	Brtonigla	Istria	7,956
Rovinj	Istria	38,747	Poreč	Istria	7,922
Raša	Istria	37,926	Medulin	Istria	7,704

\* 1 euro = 7,66 HRK (Croatian National Bank exchange rate) <http://www.hnb.hr/tecajn1/h-arhiva-tecajn.htm>

Sources: CBS 2012b; MF 2013; own analysis.

In the end we can outline administrative-territorial units that are by three or more indicators (out of six) among twenty municipalities with least favorable characteristics. Zadar area includes even eleven of them (Novigrad, Bibinje, Jasenice, Ražanac, Barban, Sv. Lovreč, Galovac, Posedarje, Privlaka, Sukošan, Sv. Filip i Jakov, Vrsi and Zemunik Donji), four of them are located in the Split area (Dugi Rat, Gradac, Marina, Seget), while two of them are situated in Istria (Barban, Sv. Lovreč) and Dubrovnik-Neretva (Slivno, Janjina) coastal subregion. On the territory of these cities and municipalities there is typically a small number of jobs, manufacturing activity and/or tourism are not significantly developed, and the unemployment is high.

#### 4.2 Functional specialization of administrative cities and municipalities in selected economic activities

Starting from the assumption that certain parts of the coastal belt are more or less specialized in certain economic activities, indices of specialization were calculated for some administrative cities and municipalities. The results have indicated the cities and municipalities that are specialized in certain economic activities, manufacturing industry or tourism, which are considered to be a significant factor in transformation of the geographical area on the coast.

Administrative cities and municipalities with above-average proportion of industry workers in relation to the entire coastal region are specialized in the manufacturing sector. The following map (see Fig. 4), shows the contours of two industrial regions that exist in the coastal area: Split and Rijeka-Istria. Industry dominates there in both economic structure and as a factor of transformation (Feletar and Stiperski 1992). In the manufacturing sector, more specialized are the City of Trogir and municipalities of Marina and Klis within the Split industrial region. We can also highlight the cities of Bakar, Kraljevica and Vodnjan and municipalities Raša and Kostrena in Rijeka-Istria industrial region. Their index of specialization is greater than 2.00. Outside of these two industrial areas, there are also two suburban

municipalities in Zadar with the index of specialization 2.00, where a number of entrepreneurial zones were established for productive purposes.

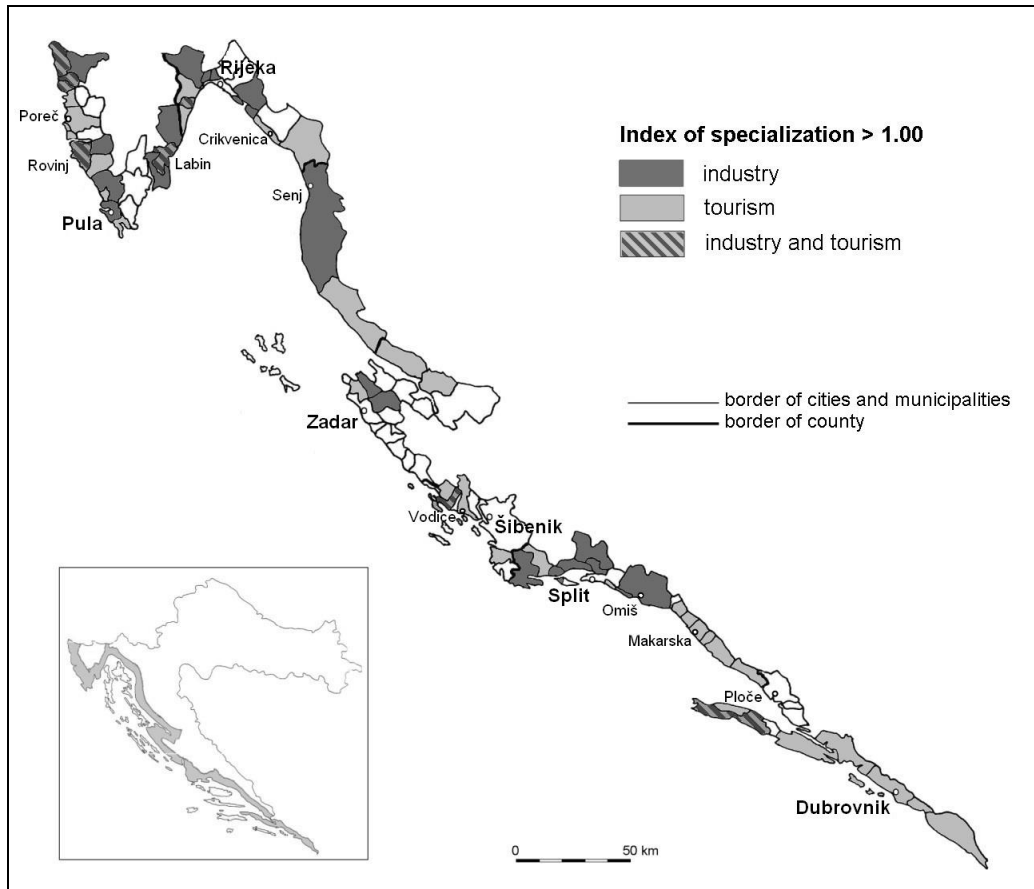


Fig. 4: Administrative cities and municipalities of the Croatian coastal region specialized in the sector of manufacturing industry and/or sector of tourism (the activity of providing accommodation and food service activities) in 2011

Sources: CBS 2012a; CBS 2013; own analysis.

Since larger cities, or regional and macro-regional centers, are oriented to a larger number of activities (Vresk 1996), instead of specialization, they are characterized by functional diversification. The only regional center that is to some degree specialized in industry sector is Pula, where there are 22.8% of industrial workers and the index of specialization is 1.46. Throughout the whole analysis, the exception is the City of Ploče which was primarily developed as a transit cargo port and is therefore focused on the transport sector. That is a result of its favorable location in the valley of Neretva River which is an important transport corridor through the Dinarides. An especially important traffic route is Ploče-Sarajevo-Šamac-Osijek to Hungary which intercepts with several longitudinal directions. Ploče serves as a transit ports primarily for the economy of Bosnia and Herzegovina and other countries such as Hungary, Slovakia and Czech Republic (Curić 1993).

The Croatian south, from Omiš to cape Oštra, provides the largest, almost continuous areas of cities and municipalities specialized in tourism, i.e. the economic activity of providing accommodation and food service activities. It includes the southern part of Split (Makarska Riviera) and Dubrovnik coastal area. Together with the cities and municipalities of Makarska Riviera (Baška Voda, Brela, Gradac, Podgora, Podstrana and Tučepi) and Dubrovnik coastal area (Konavle), parts of Istria coast (Poreč, Rovinj, Medulin and Tar-Vabriga) are also significantly specialized in the sector of tourism and hotel and restaurant activity. Their index of specialization is greater than 3.00. Indices greater than that can also be found in cities and municipalities of Lovran, Mošćenička Draga and Opatija (Opatija Riviera), in Jasenice, Nin, and Starigrad in Zadar and Vodice, Tisno and Primošten in Šibenik area. Since regional and macro-regional centers are characterized by functional diversification, they are not specialized in either tourism or hotel and restaurants industry. Among them, only Dubrovnik (17.1%) exceeds the average proportion of workers in tourism for the coastal area (6.6%) and is also the only regional center specialized in that economic activity (its index of specialization is 2.59).

There are no other strong tourist centers in other parts of southern Croatia, which is a result of polarized development of Dubrovnik, poor transport infrastructure (port Gruž and Dubrovnik airport are focused on the arrival of tourists almost exclusively to the City of Dubrovnik) and consequences of war occupation of the Dubrovnik which resulted in destroyed municipal infrastructure and housing fund. Today, the development perspectives of these areas are based on reconstruction of tourist and hotel capacities, rural tourism, development of aquaculture, agriculture (in terms of collecting and selling aromatic and medicinal plants and traditional crops such as grapes and olives), bee-keeping, processing of architectural and decorative stone, wind power, etc. (Karlić Mujo 2010).

Data in the following map suggest that municipalities that are specialized in the sector of tourism are not also specialized in the sector of manufacturing. Since tourism and industry are traditionally viewed as two opposing human activities and economic sectors with many elements of disagreement (Feletar, Malić and Stiperski 1994), the results is quite expected. In other words, administrative-territorial units with a high share of tourism workers do not typically have a significantly developed industry. A more careful analysis, however, revealed some cities and municipalities in coastal area with above-average employment in both economic activities, meaning the indices of specialization were higher than 1.00. Those are mainly the cities and municipalities in Istria coastal subregion: Labin, Novigrad, Rovinj, Umag and Brtonigla. This indicates certain signs of mutual cooperation between the two activities, for example, food industry serves hotels in tourism. Cooperation opportunities also lie between shipbuilding and nautical tourism (Vojnović 2001, 122-123). Parts of Istrian coast are an example of how tourism and industry can develop parallel and complement each other.

## **5. Conclusion**

Croatian coastal region has always had significant economic potentials that have not always been best directed. This is partly a result of a poorly oriented national and local development policy that has not made benefit from European regional funds and their potential, neither before, when Croatia was only a candidate, nor after accession the EU.

With the development of tourism, transport, maritime and overall coastal economy, a stronger effect of littoralization has begun at the stage of industrialization, followed by economic transformation of the most of the coastal region. On the other hand, deindustrialization has led to negative consequences and economic deterioration of those areas that had failed to manage an focus on their activities, mostly of the tertiary sector. However, it now comes to realization that tourism cannot be the sole holder of economic progress, but that industrial activity is also one of the foundations for economic prosperity. Therefore, those cities and municipalities that have managed to maintain a mixed economy and have not concentrated only on tourism, are now the most developed areas of the Croatian coastal region. Large cities, regional and macro-regional centers, are still the bearers of overall economic development of the surrounding wider and narrower areas, which is a result of pervasive centralized economy at the coastal belt and Croatia in general. For small municipalities and towns, a good option could be economic specialization, of course, if it is in harmony with natural constraints and greater reliance on local resources and their exploitation. In that way, at least partially, unemployment in that area would be decreased, and the opening of new business (entrepreneurial) zones and incentives to young entrepreneurs and everyone also would make opportunities for self-employment.

As the economic conditions, according to the most indicators, are the most favorable in Istria and Rijeka coastal subregions, it can be stated that the northern part of Croatian coast is economically more advanced than the rest of the coast, and it was successful in adopting the changes that Croatian economy has been affected with over the last twenty years. Istria coast has got the best economic indicators: in that northern part of Croatian coast that is closest to Central Europe unemployment is the lowest, export and budget revenue per capita are the highest, as well as the proportion of industrial workers in total number of employed.

Nevertheless, there are not marginalized areas in Croatian coast, but it is possible to identify areas that are more or less specialized in certain economic activities. That is especially true in southern Croatia (Dubrovnik coast and southern part of the Split coast), that is primarily focused on tourism and hotels and restaurants and stays "monocultural" without any other economic perspective. Istria is, on the other hand, a good example of successful combination of elements of tourism and manufacturing industry. A newest phase in economic development, which should be embraced in analyzing the coastal region, can be characterized as sustainable economic development which means to be able to improve quality of life as well as to be environmentally sensitive and responsible. In that way, uneven development of this area should be driven to a new economic growth.

## **References**

- Bajo, A., Bronić, M. 2007: Procjene učinkovitosti modela fiskalnog izravnjanja u Hrvatskoj. *Financijska teorija i praksa* 31(1): 1-24.
- Blair, J.P., Caroll, M.C. 2009: *Local Economic development: Analysis, Practices and Globalization*. Sage Publications. Los Angeles.
- Blakely, E., Leigh, N.G. 2009: *Planning Local Economic Development: Theory and Practice*. Sage Publications. Los Angeles.
- Blažević, I., Pepeonik, Z. 1996: *Turistička geografija*. Školska knjiga. Zagreb.

- Braičić, Z., Stiperski Z., Njegač, D. 2009: Utjecaj gospodarske tranzicije i rata na promjene u prostornoj slici zaposlenosti Sisačke regije. *Hrvatski geografski glasnik* 71 (1): 103-125.
- Croatian Employment Service 2012: Unemployed persons by municipality and town of residence, by educational attainment and gender as of December 31, 2012. Accessed 10th July 2012 (<http://www.hzz.hr/docslike/statistike/tablica%2036.xls>).
- Croatian Bureau of Statistics 2012a: Employment and Wages, 2011, Statistical Reports 1476. Accessed 17th June 2014 (<http://www.dzs.hr>).
- Croatian Bureau of Statistics 2012b: Foreign Trade in Goods of the Republic of Croatia by counties, towns and municipalities, 2011, First Release. Accessed 17th June 2014 (<http://www.dzs.hr>).
- Croatian Bureau of Statistics 2013: Census of Population, Households and Dwellings 2011: Population by Age and Sex, by Settlements. Accessed 17th June 2014 (<http://www.dzs.hr>).
- Curčić, Z. 1993: Prometnogeografsko značenje luke Ploče. *Geografski glasnik* 55: 191-202.
- Dunning, J.H. 2007: Regions, Globalization and Knowledge-based economy. Oxford University press, Press Inc. New York.
- Edwards, E.M. 2007: Regional and urban economics and Economic development: Theory and Methods. Auerbach Publications. New York.
- Ersoy, A., Taylor, M. 2012: Understanding dynamics of local and regional economic development in emerging economies. *Economic Research* 25 (4):1079-1088.
- Feletar, D., Malić, A., Stiperski, Z. 1994: Geographic aspects of industry-tourism relation (towns of Umag and Buje as research model). *Acta Geographica Croatica* 29:99-110.
- Feletar, D., Glamuzina, M. 2002: Prostorna distribucija zaposlenosti i nezaposlenosti kao pokazatelj diferenciranosti na prostoru Hrvatske. *Podravina* 1 (2):5-42.
- Feletar, D., Stiperski, Z. 1992: Značenje i prostorni razmještaj industrije Hrvatske. *Geografski horizont* 38 (2):85-95.
- Fredotović, M. 1992: Integralno planiranje i upravljanje razvojem – prirodni resursi i razvoj Mediterana (pregled). *Radovi, Ekonomski fakultet, Sveučilište u Splitu* 2 (6):251-264.
- Kalogjera, D. 1994: Jadran najvrijedniji prirodni resurs Hrvatske, in: Winkler Zlatko (Ed.). *Međunarodni okrugli stol Priobalje i podmorje Jadrana: realna šansa za hrvatski turizam*. Rijeka: Znanstveni savjet za pomorstvo Hrvatske akademije znanosti i umjetnosti, 59-64.
- Karličić Mujo, H. 2010: Suvremeni demografski i razvojni izazovi općine Dubrovačko primorje, Hrvatska. *Geoadria* 15 (1):109-143.
- Klempeć, S. 2004: Split as In-migration Centre. *Hrvatski geografski glasnik* 66 (1):5-28.
- Klempeć Bogadi, S., Podgorelec, S. 2009: Sociodemografske značajke i procesi u hrvatskim obalnim gradovima. *Geoadria* 14 (2):221-247.
- Kulke, E. 2004: Wirtschaftsgeographie. Schöningh. Paderborn – München – Wien – Zürich.
- Marić, J. 2009: Prostorno planiranje u Dubrovačko-neretvanskoj županiji. *Geoadria* 14 (1):87-140.
- Ministry of Finance 2013: The realization of the budgets of local and regional governments for the period 2010th to 2012th. Accessed 17th December 2014 (<http://www.mfin.hr/hr/lokalni-proracun-arhiva>).
- Mirić, O. 2009: The Regional Policy of the European Union as an Engine of Economic Development. *Evropski pokret u Srbiji*. Beograd.

- Nejašmić, I., Njegač, D. 2001: Spatial (Regional) Differences of Demographic Development in the Republic of Croatia, in: Froelich, Z., Maleković, S. and Polić, M. (Eds.). *European Regional Development Issues in the New Millennium and Their Impact on Economic Policy*. 41st Congress of the European Regional Science Association. Zagreb, 67-72.
- Pejnović, D. 2004: Depopulacija županija i disparitet u regionalnom razvoju Hrvatske. *Društvena istraživanja* 13 (4-5):701-726.
- Peračković, K. 2011: Hrvatska u postindustrijsko doba – promjene u strukturi radno aktivnoga stanovništva po sektorima djelatnosti i spolu. *Društvena istraživanja* 20 (1):89-110.
- Petrić, I. 1992: Industrija mediteranskog područja. *Radovi, Sveučilište u Splitu* 2 (6):63-89.
- Pike Rodriguez-Pose, A., Tomaney, J. 2006: *Local and regional Development*. Routledge. London-New York.
- Sić, M. 2003: Regional Disparities in Croatia. *Hrvatski geografski glasnik* 65 (2):5-28.
- Stimson, R.J., Stough, R.R., Roberts, B.H. 2006: *Regional Economic Development: Analysis and Planning Strategy*. Springer. Berlin – Heidelberg – New York.
- Šimičić, V. 1994: Priobalje i podmorje Jadrana u razvojnoj strategiji hrvatskog turizma, in: Winkler Zlatko (Ed.). *Međunarodni okrugli stol Priobalje i podmorje Jadrana: realna šansa za hrvatski turizam*. Rijeka: Znanstveni savjet za pomorstvo Hrvatske akademije znanosti i umjetnosti, 35-39.
- Šimunović, I. 2007a: Regionalizacija – hrvatska lutanja, in: Horvat Vedran (Ed.). *Forumi o regionalizaciji i održivom življenju: zbornik radova i izbor iz diskusije*. Zagreb: Fondacija Heinrich Boell, 166-175.
- Šimunović, I. 2007b: Između funkcionalne i političke regionalizacije, in: Horvat Vedran (Ed.). *Forumi o regionalizaciji i održivom življenju: Zbornik radova i izbor iz diskusije*. Zagreb: Fondacija Heinrich Boell, 23-33.
- Šimunović, I., Fredotović, M., Golem, S., Kordić, L. 2011: *Gradovi i regije hrvatskog priobalja*. Školska knjiga. Zagreb.
- Teodorović, I. 2000: Industrijska politika u nemirnim uvjetima. *Ekonomski pregled* 51 (1-2):37-54.
- Trumbić, I. 2004: Gospodarenje obalnim prostorom: sredozemna iskustva i mogućnosti njihove primjene u Hrvatskoj. *Čovjek i prostor* 51:18-23.
- Vojnović, N. 2002: Model geografskog istraživanja odnosa turizma i industrije na primjeru Pule. *Geoadria* 7 (1):109-125.
- Vresk, M. 1996: Funkcionalna struktura i funkcionalna klasifikacija gradova Hrvatske. *Geografski glasnik* 58:51-67.
- Živić, D., Pokos, N. 2005: Odabrani sociodemografski indikatori razvijenosti Hrvatske i županija. *Revija za sociologiju* 36 (3-4):207-224.



## **ECONOMIC-GEOGRAPHIC ANALYSIS OF DIFFERENTIATED DEVELOPMENT IN CROATIAN COASTAL REGION**

### **Summary**

Adriatic area is a key spatial unit in the Republic of Croatia, with a unique spatial, climatic and ecological identity and economic potential. As the resources of coastal areas should contribute significantly to national economies, it is essential that the Adriatic area is present in national development strategy, which is not a case yet. The initial development based on industry after World War II, based on raw materials and local natural resources, to the early 1990s, has not caused the expected progress in all coastal areas. However, at the poles and centers of development, there was a stronger momentum of economic development that has later spread to surrounding hinterland area. Coastal region of Croatia is one of the regions which still has not recognized and used all the possibilities of European Union projects concerning regional development, while the involvement in global economy and global flows is also very far.

Croatian coastal region discussed in this paper includes administrative cities and municipalities whose territory extends along the coastline as well as cities and municipalities whose capital is up to 10 km away from the coast, since it is the economically most active part of the region. These administrative cities and municipalities are basic analytical spatial units classified into seven major coastal spatial units which are mostly the same as the area of the counties: Istria, Rijeka, Sub-Velebit, Zadar, Šibenik, Split and Dubrovnik- Neretva coastal area.

Due to privatization of the public sector, globalization of labor market, process of tertiarization through creating new services and the aggression on Croatia, from the beginning of the 1990s, the process of deindustrialization in Croatia has been intensified (Peračković 2011). During the economic transition, the industry has virtually vanished from a significant part of the coast. Although the share of workers in industry have decreased everywhere, there are some differences, so in the Istria coast the proportion of industrial workers remains 22.1% of total employment, while in the far south (Dubrovnik-Neretva sub-region) it amounts only 3.6%, meaning that the industry is almost nonexistent.

Although the unemployment is quite high in most parts of coastal area, especially in the Split area, where many large firms established during the socialist period stopped working or reduced the volume of production, circumstances are more favorable in Istria. In a number of cities and municipalities in Istria, there is less than four unemployed people recorded per 100 inhabitants, which is a precedent on the Croatian Adriatic coast.

The reason for that is that communities based on a single industry or a few major employers will be more vulnerable than those with a more diverse economic base. As a result, communities with narrow or declining economic bases will have to develop more sophisticated economic strategies to remain economically and socially desirable places (Blakely and Leigh 2009). Consequently, Zadar, Šibenik and Dubrovnik regional centers are not specialized in the sector of manufacturing industry, nor are the macro-regional (and also important industrial) centers Split and Rijeka.

When talking about tourism, Dubrovnik is the most specialized region in this sector. However, Dubrovnik still suffers because of its poor road infrastructure and transportation connections with the rest of Croatia and the uneven economic activity and capacities of the whole Dubrovnik-Neretva area (Marić 2009). These problems are essential to solve, as investments in infrastructure and their maintenance, and are seen as being essential to sustainability and competitiveness of regional economic systems. Recently though, infrastructure is seen not only as hard infrastructure, but also as soft infrastructure (education, health, governance, knowledge) (Stimson, Stough and Roberts 2006).

Istria is the most developed part of Croatian coastal region. For the rest of the Croatian coast, economic conditions are less favorable: unemployment is traditionally the highest in the coastal area of Split, tourism is the least developed in Sub-Velebit area, and manufacturing industry is least active in Dubrovnik area, which is why export is almost completely absent in that area.

So, the specific objectives of regional and local economic development, including one in Croatian coastal region, should include: strengthening competitive position of regions by developing otherwise underutilized human and natural resource potentials, realizing opportunities for indigenous economic growth by recognizing the opportunities available for locally produced products and services, improving employment levels and long-term career options for local inhabitants, as well as improving the physical environment as a necessary component of improving the climate for business development and enhancing the quality of life of inhabitants. Policies to accomplish these aims include sustainable investment, medium and long-term job creation and building of local institutions capable of sustaining an area's economic validity (Blakely and Leigh 2009).