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Invited Paper

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Review

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THE IMPACT OF EUROPEAN TRAFFIC POLICY AND TRAFFIC ROUTES ON THE DEVELOPMENT OF THE PORTS OF RIJEKA AND PLOČE

ABSTRACT

Sea ports are the key segment of the traffic and economic development of maritime countries. Pan-European transport corridors include the most important sea ports and sea routes. They are an extension of the existing land corridors.

The most important and the most promising crossings of traffic corridors between the Central European, Pannonian and Adriatic areas, with the naturally shortest traffic routes directed towards the Croatian sea ports are Corridor 5_B (Rijeka-Zagreb-Budapest) and Corridor 5_C (Ploče-Sarajevo-Osijek-Budapest). The primary purpose of this work is to study the importance of the existing trading conditions and new investment undertakings in the context of increase in competitiveness of the ports of Rijeka and Ploče.

The authors' attention is particularly directed to the construction of new port terminals to increase the traffic potentials of the Croatian sea ports. The formed conception with its characteristics, the methodology applied, and research results represent the quality starting points in determining a uniform port policy of the Republic of Croatia within the European traffic system.

KEY WORDS

port, traffic route, European traffic policy, port of Rijeka, port of Ploče, traffic corridors, port policy, development concepts

1. INTRODUCTION

Sea ports represent the key subsystem within the maritime and traffic system, an accelerator of traffic flows and development of numerous industries. At the same time, ports represent hub points for traffic inflows from all directions including all kinds of transport means. They do not belong to any specific branch of traffic, yet they represent a factor within the maritime and traffic system that all the other participants' performance efficiency is dependent upon.[1]

Ports, as complex systems, are considered an important component of the national traffic system owing to their not only transport related but also commercial, industrial, and tourism and travel related functions, and many non-productive ones. Port system efficient operation requires clearly defined principles and targets of port, traffic, economic and overall national policies.

By means of appropriate statutory measures and development plans, the port system development may be either stimulated or destimulated by the government, the fact being at the same time conditioned by faster or slower rate of integration of the country in global traffic and economic flows. The type and size of investments in the development of port system and pertaining ports reveal the way they are treated in particular countries and the level the whole community has reached in their orientation toward logistical, traffic and port policies of a maritime state. In consideration of favourable situation from geographic and traffic aspects, i. e. branches of Pan-European corridors V_B and V_C crossing the territory of the RC as the most significant and most promising traffic routes to Croatian sea ports and particularly the ports of Rijeka and Ploče where the major portion of the total turnover is performed, new investment undertakings represent an important factor where growth in competitiveness of Croatian ports is concerned. Investments in the reconstruction and construction of new road and railway traffic connections, as well as the construction of new specialized port terminals, contribute to Croatia's overall economic and social development.

Croatian sea ports development strategy needs to be based upon compatibility of Croatian traffic and port policy, implementing the principles, development targets, and measures of the European traffic and port policy, while respecting the existing conditions for

business operation, problems and specific features of the Croatian port system.

2. BASIC FEATURES AND TARGETS OF THE EU TRAFFIC POLICY

Traffic is an activity of major importance for any community, inclusive of the European Union where traffic has a 7% - 8% share in the Union's total national product, with more than 5.5 million people employed or approximately 7% of the total number of employed.[2] However, traffic is at the same time the key factor for the common market efficiency, having in mind that the achievement of two out of three basic targets of the European integration is owed to it: free flow of people (passengers) and free flow of goods (free flow of capital being the third target).

The traffic policy, just like any other activity sector policy, denotes the integrity of social, economic, and political actions aimed at the development of traffic as an independent industrial activity and also, within the content thus conceived, at the development of traffic of a certain country or a union of countries.[3]

The specific features of the European traffic policy are reflected in closer links between the traffic policy and other policies, the role of public property within the traffic domain where present by tradition, and actually overwhelmingly until recently, the significance attaching to public transport, in particular in urban and densely populated industrial areas, strong influence of technological changes upon traffic development and traffic policy shaping, emphasized political and social role of traffic in the community life, the community attitude toward the natural and human environment aimed at reducing, and sometimes even preventing, unfavourable effects of traffic, as well as the significance attaching to the costs of traffic, yet without denying the need for economic efficiency in the movement of people and goods.[4]

The EU traffic policy has been adapted to the requirements of sustainable development, that is, the integration and implementation of transportation means meeting the efficient transportation requirements, respecting the need for protection of environment, energy sources, and safety of transportation.

The results and awareness that the major portion of overseas transports for the EU, and even a portion of inter-European transports, commences and ends in ports, and also that there can be no efficient inter-modal road-railway transport without participation of ports, have induced the definition and emphasis upon the port policy within the frame of the EU traffic policy.

3. PRESENT CONDITION AND BASIC TARGETS OF CROATIAN PORT SYSTEM DEVELOPMENT

Croatian sea ports have an important role and huge potential significance based on their favourable geographic and traffic related situation. The Republic of Croatia sea coast stretches along 1,777.7 km, in addition to its insular coastline 4,012.4 km long. Out of approximately 350 ports and boat harbours with insular ones included, six ports (Rijeka, Zadar, Šibenik, Split, Ploče, and Dubrovnik) can accommodate large-sized ocean-going ships, all of them being situated along the mainland coastline. Their overall turnover capacity reaches 23 million tons of dry cargoes, which, in addition to the port of Rijeka oil terminal capacity of 16 million tons yearly, makes an overall capacity of approximately 39 million tons of dry and liquid cargoes.

It is an undisputable fact that not all Croatian ports, which have been so far categorized as main ports, are equally important for the national economic development. For this reason ports require ranking according to their role and importance level, and the applied criterion to be followed in implementing the selective national policy. Whilst on a short-term basis the development of certain ports still needs to be supported by the government, on a long-term basis their development will be left exclusively upon the market conditions.[5] It is necessary to make a clear distinction between cargo ports and passenger ports, and, with respect for traffic concentration and limited investment funds, to support the development of two cargo ports: Rijeka and Ploče, whereas speaking of passenger ports, support for the development should be particularly directed to the ports of: Rijeka, Zadar, Šibenik, Split, and Dubrovnik.

The major portion of cargo turnover in Croatian ports refers to the ports of Rijeka and Ploče, with almost 90% share in total cargo turnover in all Croatian ports, whereas the major portion of passenger turnover refers to the ports of Split and Zadar.

The Croatian Sea Port Development Plan for the period ending with 2010 has envisaged huge investments in the streamlining of ports, as the basis for port turnover growth, more intensive development of the land and seaborne traffic, and concessions to national and foreign investors.

Taking into consideration the significant decrease in the port turnover in the '90s of 20th century, which resulted from various objective and subjective factors Croatia had faced (warlike situation, absence of consistent maritime and port policies, inadequate traffic funding policy and transport tariffing policy, inadequate and obsolete railway and road communication lines...), the existing condition and the expected future

Table 1 - Turnover at ports of special commercial importance for the RC

Year	2000	2001	2002	2003	2004	2005 P
CARGOES (000 t)						
Rijeka	6,800	7,901	7,970	10,416	11,361	12,000
Ploče	804	921	1,062	1,284	2,031	3,000
Šibenik	570	515	460	601	741	1,400
Zadar	303	330	361	432	235	500
TOTAL	8,477	9,667	9,853	12,733	14,368	16,900
PASSENGERS (000)						
Šibenik	323	364	470	507	522	537
Split	1,975	2,287	2,563	2,891	3,184	3,400
Zadar	1,190	1,374	1,508	1,613	1,769	1,900
Dubrovnik	355	431	533	743	767	850
TOTAL	3,553	4,456	5,772	4,254	5,772	6,687

Source: www. mmppr. hr

development of the Republic of Croatia and its neighbouring countries have been defined as priority investments in the Croatian sea ports.

The Ministry of the Sea, Tourism, Transportation and Development has determined the following items as their basic targets and investments aimed at improvement of the port system:[6]

- Streamlining of the port of Rijeka aimed at enabling growth in the transit of cargoes, specifically through the container and ro-ro terminal;
- Increasing of the turnover of bulk cargoes and containers at the port of Ploče serving the needs of the Republic of Bosnia and Herzegovina and other countries crossed by the Pan-European traffic corridor V_C;
- Streamlining and reconstruction of the port of Dubrovnik passenger terminal;
- Construction of a new passenger and ro-ro terminal at the port of Zadar;
- Construction of a passenger ship summer quay at the port of Split;
- Reconstruction of other ports of national and district importance in linking the mainland with islands;
- Supporting the introduction of Trans-Adriatic shipping routes, and linking of the Adriatic with the Ionian sea;
- Providing ports with equipment and devices for handling oily waters and cargo residues;
- Adjustment of legislation with the corresponding EU legislation according to the national programme, where adjustment of particular issues may be deferred, provided they have been considered items for negotiations by the Government of the Republic of Croatia and their deferred imple-

mentation has been agreed during the negotiation.

In the period between the establishment of the port authorities (1996 and 1997) and 2004, there were HRK 27 million invested out of the national Budget in ports open for public transport which bear importance for the RC, the figure equalling approximately € 37 million. During the 2004 –2008 mandate, the investment to be made by the Croatian Government in the construction of port infrastructure in ports of international economic interest for the Republic of Croatia and in district ports will reach approximately € 600 million.[7]

By means of national policy measures which will basically comprise the necessary financial investments in the development of cargo and passenger ports, as well as the elaborated foreign capital attracting system (by means of various forms of concession contracts) and by introduction of sophisticated transport technologies, it is possible to make the necessary investments in the development of the Croatian port system to become a reality within the anticipated time limit.

4. THE EFFECT OF TRAFFIC POLICY AND TRAFFIC CORRIDORS UPON THE DEVELOPMENT OF THE PORTS OF RIJEKA AND PLOČE

The situation, maritime tradition, and the vicinity of the European market characterized by traditionally significant seaborne trading, have made the port of Rijeka distinguishable beyond the national frame. The port of Rijeka is the major transit port towards the closely neighbouring countries: Hungary, Slova-

kia, Austria and other Danube-basin countries, its major advantage against the competitive ports being the natural depth of the sea in the bay and in port basins, in addition to the shortest sea route within the traffic corridor to the Near East, Far East, and Africa (Table 2).

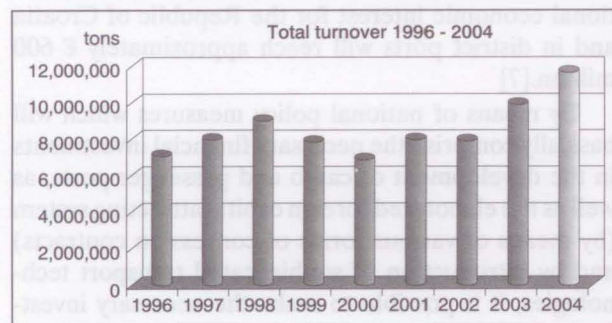
Table 2 - Distances from the port of Rijeka and North Sea ports to the Middle and Far East ports

Ports	North Adriatic (Nm)	North Sea (Nm)
Port Said	1,294	3,564
Bombay	4,340	6,610
Singapore	6,308	8,578
Hong Kong	7,767	10,037
Pusan	9,169	11,466

Source: www.portauthority.hr/rijeka

In the Port of Rijeka the turnover total, the most significant growth has been recorded in container turnover, i. e. of 115% in 2004 as compared with the preceding year. The Port of Rijeka container turnover in 2004 was 60,864 TEUs, and the turnover total reached 11,571.661 million tons.

The most significant and most dominant crossing of the corridor linking the Central European, Pannonian, and the Adriatic regions, comprising the naturally shortest traffic connection toward the largest Croatian port is the V_B branch (Rijeka-Zagreb-Budapest), starting and ending with the port of Rijeka. [8]



Graph 1 - The port of Rijeka turnover total 1996- 2004

Source: http://www.portauthority.hr/rijeka/info_statistika.shtml

With the construction of the road and railway infrastructure through corridors V and X, the port of

Table 3 - The port of Ploče cargo turnover by cargo type (1988 – 2004)

Year	1988	1991	1995	2000	2001	2002	2003	2004
General cargoes	881	521	251	266	356	396	420	346
Dry bulk and bulk cargoes	3,336	1,356	78	417	365	474	675	1,518
Liquid cargoes	360	360	84	121	200	193	186	167
Turnover total	4,577	268	413	804	921	1,063	1,281	2,031

Source: www.port-authority-ploce.hr

Rijeka will be fully integrated in the European traffic system. With the view of making the port of Rijeka traffic policy become a reality, there was the most significant development and investment undertaking in the port of Rijeka entered in 2003, presently under performance through the Rijeka Gateway Project aimed at modernization of the port and development of the road infrastructure. The largest project at present, for which the RC has been granted a 155 million-dollar loan facility by the World Bank, has envisaged the construction of additional operational areas – a sophisticated multi-purpose terminal to increase the port competitiveness through new road traffic lines and open new investment opportunities for any potential investor. The project has envisaged conversion of a part of the port from commercial to passenger purpose port, with its additional usage value added being an indicator of acceptance of the most recent European trends. The project realization deadline is 2009.

The port of Ploče geographical and traffic-related situation has greatly contributed to the development of the port bearing exceptional importance for its catchment area and the economy of the Republic of Bosnia and Herzegovina, for partners from Serbia and Montenegro, Hungary, and other Central European countries. The backbone of the zone is the transversal traffic route Ploče-Sarajevo-Šamac-Osijek-Hungary. The anticipated construction of the Danube-Sava canal from Vukovar to Šamac, as well as the construction of a riverine port at Bosanski Šamac on Sava are expected to contribute to better valorisation of that traffic route with road and railway traffic infrastructure ending with the port of Ploče.

In recent years, the port of Ploče has recorded significant turnover growth and thus has been getting closer to its pre-war business results, while anticipating a 6,5 million tons of annual cargo turnover in the next 5 years. In the port of Ploče the total turnover, the major portion of nearly 75% refers to dry bulk cargoes (coal, alumina, bauxite), whereas the container turnover in 2004 recorded 14,500 TEUs.

The port of Ploče is the sea port of the Pan-European corridor V_C branch to Sarajevo and Budapest, and owing to the significance of that traffic corridor and capability of attracting large quantities of cargo, it

has been included in projects featuring substantial investments. Continued negotiations with the World Bank have dealt with the realization of the loan intended for the construction of container terminal which is expected to provide for container annual turnover of 60,000 TEUs, and the construction of bulk cargo terminal expected to provide for handling of 6 million tons of cargo yearly.

The project estimated value is € 42 million with respect to the dry bulk cargo terminal and € 32 million with respect to the container terminal.

5. CONCLUSION

Speaking of Croatian port system, the most important ports according to their turnover rates are the ports of Rijeka and Ploče. Their favourable geographic and traffic-related situation, the fact that these key points are situated along the very important Pan-European corridor V (branch V_B and V_C), as well as the European market tendency for extension toward Asia and Africa, represent the objective prerequisites for large-scale opportunities for attracting cargoes from the hinterland countries and for active presence on the market in providing port services for cargoes in transit.

The adjustment of Croatian policy principles and targets with the European traffic and port policies represents the basis for the development of Croatian port system. Introduction of sea ports in the development and investment projects will contribute to streamlining of the port and road traffic infrastructure as the basic prerequisites for competitiveness on the European and global market of port services. In the period 2004 – 2008, approximately € 600 million will be invested in ports of special importance for the Republic of Croatia and in the district ports.

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SAŽETAK

UTJECAJ EUROPSKE PROMETNE POLITIKE I PROMETNIH PRAVACA NA RAZVITAK LUKA RIJEKA I PLOČE

Morske luke su ključni segment razvitka prometa i gospodarstva pomorskih zemalja. Paneuropski transportni koridori obuhvaćaju najvažnije morske luke i pomorske pravce i nadovezuju se na postojeće kopnene koridore.

Najznačajniji i najperspektivniji prijelazi prometnih koridora između srednjoeuropskog, panonskog i jadranskog prostora, s prirodno najkraćim prometnim pravcima usmjerenim prema hrvatskim morskim lukama su ogranak koridora V_B (Rijeka – Zagreb – Budimpešta) i ogranak koridora V_C (Ploče – Sarajevo – Osijek – Budimpešta).

Temeljni cilj ovog rada je istražiti značaj postojećih uvjeta poslovanja i novih investicijskih zahvata u kontekstu povećanja konkurentnosti luka Rijeka i Ploče.

Posebna pozornost autora usmjerena je na izgradnju novih lučkih terminala koji će povećati prometne potencijale hrvatskih morskih luka. Po svojim obilježjima, primijenjenoj metodologiji i rezultatima istraživanja dobivene spoznaje predstavljaju kvalitetna polazišta za utvrđivanje jedinstvene lučke politike Republike Hrvatske u europskom prometnom sustavu.

KLJUČNE RIJEČI

luka, prometni pravac, europska prometna politika, luka Rijeka, luka Ploče, prometni koridori, lučka politika, koncepcije razvoja

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KLJUČNE RIJECI

ključne riječi: prometna politika, europski prometni politika, luka Rijeka, luka Ploče, prometni terminal, luka Ploče, prometna strategija

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The adjustment of Croatian policy principles and targets with the European traffic and port policies represents the basis for the development of Croatian port system. Introduction of sea ports in the development and investment projects will contribute to strengthening of the port and road traffic infrastructure as the basic prerequisites for competitiveness on the European and global market of port services. In the period 2004 - 2008, approximately € 600 million will be invested in ports of special importance for the public of Croatia and in the distant ports.

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SAŽETAK

UTJECAJ EUROPSKE PROMETNE POLITIKE I PROMETNIH PRAKACA NA RAZVIJAJ LUKA RIJEKA I PLOČE

Morska luka u ključni segmenti razvoja i gospodarstva pomorskih zemalja. Pomorski prometni bodovi obilježavaju najvažnije morske luke i prometna pravca i mreža mreže te su posebna pozornost zaslužuju.