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MOGUĆNOST PRIMJENE *ECOBONUS* INICIJATIVE U REPUBLICI HRVATSKOJ

IMPLEMENTATION OF “ECOBONUS” PROJECT IN THE REPUBLIC OF CROATIA

SAŽETAK

“Morske autoceste” predstavljaju koncept nove multimodalne europske pomorske povezanosti te su još uvijek ogroman neiskorišteni potencijal pomorskog prometa u državama Europske unije, ali i Republike Hrvatske. Preusmjerenje tokova tereta na more, povećanje prometne kohezije, smanjenje cestovnih zakrčenja preraspodjelom tereta na pomorski i željeznički promet, te možda najznačajnije, primjena ekološki prihvatljivog transporta, samo su neki od razloga promicanja ideje o “morskim autocestama”. Postizanje čistog, sigurnog i učinkovitog transportnog sustava kao alternativa kopnenog prijevoza očituje se u mnogobrojnim strateškim dokumentima Europske unije te za cilj ima uvođenje novih multimodalnih logističkih lanaca koji će pridonijeti stvaranju strukturalnih promjena u prijevozu. Također, ovaj koncept doprinosi političkim inicijativama Europske unije za europskim pomorskim prostorom bez granica te promicanju ekološki održivog transporta. Na tragu navedenog, Ecobonus je inicijativa predstavljena od strane talijanske Vlade kojoj je cilj promocija korištenja mreža linija “morskih autocesta” te preusmjerenje teretnog kopnenog prometa na pomorski prijevoz. Stoga je cilj ovoga rada sustavno istražiti i elaborirati mogućnost primjene i implementacije Ecobonus inicijative u Republici Hrvatskoj. Pritom nužnim se pokazalo definiranje glavnih odrednica “morskih autocesta” te primjena Ecobonus inicijative. Metodološkim instrumentarijem odnosa troškova i koristi Ecobonusa u Italiji dokazana je važnost realizacije ovakve inicijative kao i mogućnosti primjene i implementacije Ecobonus inicijative u Republici Hrvatskoj.

Ključne riječi: “morske autoceste”, Ecobonus inicijativa, priobalno povezivanje

SUMMARY

Motorways of the sea represent the concept of the new European maritime multimodal connections and still have huge untapped potential of maritime transport in the European Union countries and in the Republic of Croatia. Diverting freight flows to the sea, increasing the cohesion of traffic, reducing road congestion by redistributing the cargo flows on the maritime and rail transport, and perhaps most importantly, implementation of the environmentally friendly transport are just some of the reasons for promoting the idea of a motorways of the sea. Achieving a clean, safe and efficient transportation system as an alternative to land transport is reflected in numerous policy documents of the European Union and generally aims to introduce new multimodal logistics chains that will contribute to the creation of structural changes in transport. Also, this concept contributes to the political initiatives of the European Union for the European maritime space without boundaries, and promotes environmentally sustainable transportation. In addition, Ecobonus initiative was launched by the Italian government and it seeks to promote the use of motorways of the sea networks and divert freight traffic from inland to maritime transportation. The aim of this paper is to systematically explore and elaborate the possibilities of the application and implementation “Ecobonus” initiative in the Republic of Croatia. It was necessary to define the major determinant of motorways of the sea and “Ecobonus” initiative. Using the methodological approach of the cost-benefit analysis of Ecobonus’s in Italy proven the importance of implementation of this initiative and possible application and implementation of “Ecobonus” initiative in the Republic of Croatia.

Key words: motorways of the sea, Ecobonus initiatives, short sea shipping

1. UVOD

Preopterećenje cestovnih pravaca kao jedno od najvećih prometnih problema današnjice glavni je uzrok uvođenja alternativnog načina prijevoza. Europska unija je našla rješenje u priobalnom prometnom povezivanju, domaćem i međunarodnom, koje postaje glavnim čimbenikom realizacije multimodalnog prijevoznog sustava. Dugoročni je cilj povezivanje, odnosno integracija različitih načina transporta, od kojih svaki sa svojim prednostima osigurava učinkovitost prometnog sustava.

Europska komisija je u Bijeloj knjizi o europskoj prometnoj politici (*European Transport Policy for 2010: Time to Decide*) [5 p. 12] iz 2001. godine za 2010. godinu je predložila paket od 60 specifičnih mjera prometne politike kao instrumenta implementacije načelnih smjernica. Unutar Zajednice pomorski prijevoz i prijevoz unutarnjim vodenim putovima ima ogroman prometni potencijal (35.000 km obale i stotine morskih i riječnih luka) te praktički neograničen kapacitet prijevoza. Stoga pomorski i riječni promet postaju dvije ključne komponente intermodalnosti u cilju smanjenja štetnog utjecaja cestovnog i željezničkog prometa. Također, Bijela knjiga uvodi koncept "morskog autoputa" koji podrazumijeva kvalitetnu uslugu pomorskog prijevoza u kombinaciji s ostalim oblicima prijevoza primarno putem morskih ruta država članica EU-a, ali i između susjednih trećih zemalja.

Nadalje, 2011. godine objavljena je nova Bijela knjiga o europskoj prometnoj politici pod nazivom *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system* kao strateški dokument kojim Europska komisija iznosi svoja nastojanja vezana uz razvoj europskoga prometnog sustava do 2030., odnosno 2050. godine. Primjerice, do 2030. trebalo bi 30% cestovnoga teretnog prijevoza na udaljenostima većim od 300 km preusmjeriti na druge oblike prijevoza, kao što su željeznica i morski/vodni prijevoz, a do 2050. čak i više od 50% [6 p. 9]. Taj bi proces trebalo pospješiti izgradnjom učinkovitih tzv. "zelenih teretnih koridora" i "morskih autocesta". Nadalje, do 2030. godine trebalo bi izgraditi potpuno funkcionalni glavni dio multimodalne transeuropske prometne mreže. Mreža bi do 2050. godine trebala biti u potpunosti dovršena, imati visoku kvalitetu, velike kapacitete i pružati odgovarajući niz informacijskih usluga.

1. INTRODUCTION

Overloaded road ways as one of the biggest traffic problems nowadays are the main reason for introducing an alternative way of transport. The European Union has found a solution in coastal transportation links both domestic and international, which is turning into a major factor of creating a multimodal transportation system.

A long-term objective is seen as a linking relatively an integration of various means of transport each with its own advantages providing efficiency of the transportation system.

The European Commission made a suggestion in the White Paper on European transport policy for 2010 called "European Transport Policy for 2010: Time to Decide" [5,p.12], for a package of 60 specific transport policy measures as the instrument of implementation of principal directives. Within the Union both maritime and inland waterway transportation have a huge transport potential at disposal (3500 km of the coastline and several hundreds in sea and river ports) as well as unlimited transportation capacity. Consequently, maritime and river navigation are becoming two key components of the intermodal system aiming at reduction of detrimental influence of road and rail transport. The White Paper introduces also a concept of the "sea highway" being a synonym for a maritime quality service combined with other transport means, primarily not only by sea routes of the European Union state members but also among neighbouring third countries.

Moreover, in 2011, a new version of the White Paper on European transport policy was published called "Roadmap to a Single European Transport Area-Towards a competition and resource efficient transport system" as a strategic document by which the European Commission states its effort related to the development of the European transportation system by 2030 relatively 2050.

For example, by 2030, 30% of the road freight transport at distances longer than 30 km should be diverted to other transportation means like rail and seaway / water transportation, and by 2050, even more than 50% [6,p.9]. That process should be accelerated by building the so called "green freight corridors" and "motorways of the sea". Furthermore, by 2030, a functional major part of the multimodal trans European transportation network should be

Europska komisija je 2007. godine izdala *Freight transport logistic action plan* kojim je predložila niz mjera s ciljem promicanja prijevoznike logistike, poticanja konkurentnosti intermodalnog prijevoznikog sustava, stvaranja okvira koji će osigurati modernizaciju europskih luka te privlačenje ulagača, podizanje razine konkurentnosti pomorskog prijevoza te analizu napretka u razvoju održive mobilnosti [9, p. 42].

U kontekstu navedene problematike nužno je napomenuti *The 30 Priority Projects* Europske unije [14], odnosno 30 prioriternih projekata od značajnog europskog interesa koji su uključeni u Smjernice Europske unije za razvoj TEN-T, a definirani su na temelju prijedloga država članica. Prioritetni projekti su izabrani po njihovoj dodanoj vrijednosti te njihovom doprinosu održivom prometnom razvoju. Njihova realizacija – planirana za 2020. – bi trebala poboljšati ekonomsku učinkovitost u europskom prometnom sustavu te time osigurati izravnu korist svih europskih građana. Od tih 30 ključnih projekata, 18 se odnosi na željeznički promet, 3 na cestovno-željeznički, 2 na unutarnje plovne putove itd. *Priority Project 21 Motorways of the Sea* (PP21) odnosi se na “morske autoceste”.

PP21 temelji se na cilju EU-a za postizanjem čistog, sigurnog i učinkovitog transportnog sustava kao alternativni kopnenog prijevoza. Koncept ima za cilj uvođenje novih intermodalnih i pomorskih logističkih lanaca koji će pridonijeti stvaranju strukturalnih promjena u prijevozu. Također, ovaj koncept doprinosi političkim inicijativama Europske unije za europskim pomorskim prostorom bez granica, pomorskoj strategiji za 2018., te promicanju okolišno održivog transporta.

Na tom tragu nastala je inicijativa (poticajni plan) talijanske Vlade, *Ecobonus*, s ciljem promocije i jačanja morskih veza te usmjeravanja prijevoza s kopnenih prometnica na morske putove. Konkretno, odlukom donesenom 31. srpnja 2008. godine definirano je 28 morskih relacija, od kojih 8 internacionalnih [12, p.4]. Inicijativa *Ecobonus* prijevoznikim tvrtkama trebala bi osiguravati pogodnosti u pogledu smanjenja transportnih troškova prilikom korištenja glavnih morskih relacija čime je prijevoz tereta morskim putem u Europi i na Mediteranu postao najučinkovitijim načinom prijevoza s obzirom na konstantno rastuću cijenu goriva, cestarina te je u funkciji održivog transportnog razvoja.

built completely. The system is expected to be completed by 2050. It is supposed to be of high quality, large capacity, and it is to provide an appropriate variety of informational services.

The European Commission issued 2007 the “Freight transport logistic action plan” which suggested a unit of measurements aiming at promotion of transportation logistics, competition advancement of the intermodal transportation system, creation of a framework providing modernisation of European ports as well as attracting investors, a competition level improvement of the seaway transport, and the development analysis within sustainable mobility [9,p.42].

In the context of the problem issue stated hereby, it is necessary to emphasize “The 30 Priority Projects” by the European Union [14], relatively 30 priority projects of greater European interest are included in the Directives of the European Union for the TEN-T, and defined on the ground of the states members’ suggestion. The priority projects were selected according to their added value and contribution to the sustainable transport development. Their realization, planned for 2020, should improve economic efficiency within the European transportation system, providing direct benefit for all European citizens. Out of 30 key projects, 18 refer to the rail transport, 3 to the road-rail projects, 2 to the inner navigable ways etc.

The “Priority project 21 Motorways of the Sea” (PP21) refers to the sea motorways. The PP21 has ground on the EU-objectives to achieve a clean, safe and efficient transport system as an alternative to land transport. The objective of the concept is to introduce new intermodal and logistic chains that will contribute to create structural changes in the transport. Also, the concept contributes to the political initiatives of the European Union for the European maritime area free of boundaries, to the maritime strategy for 2018, as well as to the promotion of the environment sustainable transport.

Accordingly, an initiative (incentive plan) was created by the Italian government called *Ecobonus* aiming at promotion and strengthening maritime connections as well as diverting transport from land over to sea ways. The 28 sea directions were defined by the decision reached on 31 July 2008, out of which 8 being international [12,p.4]. The Ecobonus initiative should provide benefits as to the reduction of transport costs when using the main sea direc-

2. INICIJATIVA *ECOBONUS* I “MORSKE AUTOCESTE”

Uz *Ecobonus* veže se pojam “morske autoceste”, koncepta koji predstavlja novu intermodalnu europsku pomorsku povezanost, nove logističke lance te strukturalnu promjenu prometne organizacije općenito. Mreža “morskih autocesta” uz bolju iskorištenost pomorskog prometa te potencijala željezničkog sustava i sustava kopnenog vodnog prometa trebala bi biti mnogo učinkovitija te usmjerena očuvanju okoliša i održivog razvoja. “Morske autoceste” trebale bi poboljšati pristup europskim tržištima i rasteretiti prenapučene europske prometnice na kojima se odvija 85% ukupnog europskog prijevoza tereta.

U proljeće 2004. godine **Europski parlament je izdao smjernice** [4, p. 5.] kojima se definira pravni okvir za stvaranje “morskih autocesta”. Utvrđena su tri glavna cilja projekta:

1. Preusmjeravanje tokova tereta na more
2. Povećanje prometne kohezije
3. Smanjenje cestovnih zakrčenja preraspodjelom tereta.

Pritom su ustanovljena četiri osnovna morska koridora [2, p. 10.]:

1. “**Autocesta Baltičkog mora**” (povezuje države članice na Baltičkom moru s državama srednje i zapadne Europe putem veze Sjeverno more – Baltičko more), realizacija do 2010. godine.
2. “**Morska autocesta zapadne Europe**” (povezuje Portugal i Španjolsku sa Sjevernim i Irskim morem), realizacija do 2010. godine.
3. “**Morska autocesta jugoistočne Europe**” (povezuje Jadransko more s Jonskim morem i istočnim Mediteranom, uključujući Cipar), realizacija do 2010. godine.
4. “**Morska autocesta jugozapadne Europe**” (zapadni Mediteran – povezuje Španjolsku, Francusku, Italiju i Maltu putem “morske autoceste jugoistočne Europe” s Crnim morem), realizacija do 2010. godine.

Glavni morski koridori prikazani su na sljedećem zemljovidu.

Također, pod europskom inicijativom i inicijativom *Ecobonusa*, talijansko Ministarstvo infrastrukture i prometa sudjeluje u razvoju 2

tions, which makes freight transport by sea in Europe and in the Mediterranean the most efficient transport way considering a constant rise of fuel prices and tolls. It supports the sustainable transport development simultaneously.

2. *ECOBONUS* INITIATIVE AND THE “MOTORWAYS OF THE SEA”

The *Ecobonus* is tied to the idea of “the motorways of the sea”, a concept which represents a new intermodal European maritime unit, new logistic chains and a structural change of the transport organisation in general terms. The network of the sea motorways, along with a better exploitation of maritime transport and a possible rail system and a land-water transport system, should be much more efficient and aimed at environment preservation and sustainable development. The sea motorways are expected to improve access to the European markets and to unload overcrowded European traffic ways which cover 85% of the European freight transport in total.

In spring 2004, **the European parliament issued directives** [4, p. 5] which define a legal framework in order to create “the motorways of the sea”. Three major aims of the projects were established:

1. diverting freight directions towards the sea,
2. increasing transport cohesion
3. reducing road jams by redistribution of freight.

Four basic sea corridors were established hereby [2 ,p.10]:

1. **the Baltic Sea Motorway** (connecting state countries on the Baltic sea with Mid- and West- Europe via the North Sea- Baltic Sea-connection), realization by 2010
2. **the Sea Motorway of Western Europe** (connecting Portugal and Spain with the North Sea and the Irish Sea), realization by 2010
3. **the Sea Motorway of South-East Europe** (connecting the Adriatic with the Ionic Sea and the eastern Mediterranean, including Cyprus), realization by 2010
4. **the Sea Motorway of South-Western Europe** (the western Mediterranean- connecting Spain, France, Italy and Malta by the sea highway of South-Western Europe with the Black Sea), realization by 2010.

Zemljovid 1. “Morske autoceste”
Map 1 The Motorways of the Sea



Izvor/Source: <http://ec.europa.eu/ten/transport/maps/doc/axes/pp21.pdf> (12.04.2012.)

projekta koja su vezana za razvoj “morskih autocesta” i to:

1. **“Morska autocesta” – regija Zapad** – projekt je započeo pripremom i implementacijom koridora “morskih autocesta” u kontekstu međuobalnog povezivanja na području zapadne i jugozapadne Europe. Države – partneri koje sudjeluju u projektu su Španjolska kao koordinator, Francuska, Irska i Italija [10]
2. **“Morska autocesta” – regija Istok** – cilj projekta je uspješna implementacija koncepta na području istočnog Mediterana. U tom smislu, u studenom 2007. godine projektu su se priključili predstavnici vlada i institucija Grčke, Italije, Malte, Cipra i Slovenije. Realizacija projekta bila je predviđena u prvoj polovici 2008. godine [11].

The main sea corridors are shown in the following map.

Also, under the Europe’s initiative and the one of the Ecobonus, the Italian Ministry of Infrastructure and Transport is taking part in developing 2 projects related to the development of the sea highways as follows:

1. **the Sea Motorway – Region West** –the project was started by the preparation and implementation of sea highway corridors in the context of reciprocal linking in the area of Western and South-Western Europe. The states-partners taking part in the project are: Spain as the coordinator, France, Ireland, and Italy [10].
2. **the Sea Motorway – Region East** – the aim of the project is successful implementation of the concept in the area of the eastern

U razdoblju od 2001. do 2007. godine udvostručen je broj "morskih autocesta", i više od 1.500.000 prijevoza godišnje preusmjereno je s prometnica. Tržišni udio prijevoza "morskim autocestama" u ukupnom cestovnom prometu povećan je s 2% na 4,5% (cilj je povećanje na 8% do 2012. godine), povećan je broj narudžbi za izgradnjom novih brodova u europskim brodogradilištima u vrijednosti od 4 milijarde € [1, p.5].

3. PRIOBALNO POVEZIVANJE U EUROPSKOJ UNIJI

Priobalno prometno povezivanje usmjereno je na razvoj takvog prometnog sustava u kojem bi se postigla ravnoteža željezničkog, pomorskog, zračnog te prometa unutarnjim vodenim putovima. Neravnomjeran razvoj unutarnjeg tržišta pojedinih država ima za posljedicu neravnomjeran razvoj pojedinih oblika prometa, stoga je nužno donijeti odluke na nacionalnoj i regionalnoj razini te propisati pravnu regulativu, usmjeriti socijalnu i obrazovnu politiku, unaprijediti zakone o konkurentnosti tržišta i dr.

Luke imaju važnu ulogu u priobalnom prometnom povezivanju. Primjerice priobalno prometno povezivanje u većini država Europske unije predstavlja dominantan oblik pomorskog prijevoza. Ističu se Finska, Švedska i Malta s više od 90% obalnog prijevoza robe [13].

Nažalost, javljaju se brojne prepreke u praksi koje program priobalnog prometnog povezivanja na svom razvojnom putu mora prevladati, primjerice:

- uvjerenje da je riječ o zastarjelom načinu prijevoza
- početak integracije međuobalnog povezivanja u multimodalni prometni sustav
- nužnost ispitivanja kompleksne dokumentacije i administrativnih procedura te
- potrebno unapređenje učinkovitosti luka, lučkih službi i veza luka sa zaledem.

Problemi u radu luka, kako europskih tako i hrvatskih, najčešće su uzrokovani nedostatkom odgovarajuće infrastrukture, manjkom kopnenih veza te neučinkovitošću pri manipulaciji teretom. Luke bi trebale omogućiti jednaku razinu usluge svim korisnicima, na najbolji način zadovoljiti potrebe priobalnog prometnog po-

Mediterranean. In the same sense, in November 2007, the process was joined by the representatives of the government and institutions of Greece, Italy, Malta, Cyprus and Slovenia. The realization was planned for the first half of 2008 [11].

In the period between 2001 and 2007 a number of the sea highways doubled, and over 1 500 000 transports yearly were diverted away from traffic ways. The market share of the transport by the sea highways, in the road traffic totally, increased from 2% to 4% (the target is an increase of up to 8% by 2012); the number of orders for building new ships in total value of 4 billion Euros [1,p.5].

3. SHORT SEA SHIPPING IN THE EUROPEAN UNION

The short sea shipping is directed towards the transportation system development which enables a balance between rail, maritime and air traffic, and one in the inner water flows.

Uneven development on the internal market of some states results in uneven development of individual traffic forms. That is why it is necessary to make decisions on a national and regional level as well as to dictate regulations, to direct both social and educational policy, to advance legislation on market competition etc.

Ports play an important role in coastal traffic linking. For example, the short sea shipping represents in most states of the European Union a dominant form of sea transport. To be emphasized are : Finland, Sweden and Malta, with over 90 % of coastal goods transport [13].

Unfortunately, numerous obstacles appear in reality during a developing process, which are to be overcome in the programme of short sea shipping for example:

- conviction that it is all about an outdated form of transport,
- integration start of the coastal linking in a multimodal traffic system,
- necessity to verify the complex documents and administrative procedures, and
- necessary advancement of efficiency in ports, port authorities and port connections to the hinterland.

Problems in functioning of ports, both European and Croatian ones, are caused mostly by

vezivanja te međusobno izmjenjivati informacije i iskustva.

Iako korisnici pomorskog prijevoza počinju mijenjati mišljenje o programu priobalnog prometnog povezivanja jedna od najvećih prepreka njegova razvoja leži u činjenici da ga ipak još ne smatraju ravnopravnim i sastavnim dijelom lanca intermodalnog prijevoza. Određen broj prijevoznika smatra da ne zadovoljava uvjete vremena prijevoza, učestalosti, fleksibilnosti i pouzdanosti te da zadovoljava jedino zahtjev sigurnosti. Kako bi se ovakva razmišljanja iskorijenila i praksa prijevoznika promijenila, potrebno je programu priobalnog prometnog povezivanja posvetiti više pažnje i osigurati širenje svima dostupnih informacija o potencijalu ovoga programa.

4. ZNAČAJKE *ECOBONUS* I TALIJANSKA ISKUSTVA

Ecobonus je inicijativa predstavljena od strane talijanske Vlade kojoj je cilj promocija korištenja mreže linija "morskih autocesta". Kompanija *Rete Autostrade Mediterranee* utemeljena 2004. godine podržava i koordinira aktivnosti razvoja usluga "morskih autocesta" na nacionalnoj (talijanskoj) i europskoj razini. *Ecobonus* je usmjeren prijevozničkim kompanijama koje bi umjesto dosadašnjeg cestovnog, trebale dati prednost pomorskom prijevozu.

Prijevozničke kompanije koje koriste prednosti *Ecobonusa* mogu biti u partnerstvu s drugim prijevozničkim ili trajektnim kompanijama pod osnovnim uvjetom da godišnje minimalno 80 puta prevezu teret na istoj relaciji. Uključenje u projekt i ostvarenje prava na povrat sredstava, odnosno povrat dijela prometnih troškova podrazumijeva prethodno slanje zahtjeva od strane prijevozničkih kompanija talijanskom Ministarstvu prometa zaključno do 31. siječnja sljedeće godine za tekuću godinu. Zaprimiteljne zahtjeve obrađuje i odobrava Odbor imenovan od strane Ministarstva. Uvjet za povratom sredstava također je i obveza prijevozničke kompanije zadržati broj realiziranih pomorskih prijevoza kao i količinu prevezene robe/tereta u razdoblju od sljedeće tri godine, od dana kada je uputila zahtjev za dobivanjem poticaja. Fondu *Ecobonus* su 2008. godine dodijeljena sredstva u iznosu od 231 mil. € namijenjena za raspodjelu u tri godine [7].

lack of adequate infrastructure, land connections, and inefficiency when manipulating freight. Ports should provide the same level of services to all users; they should also fulfil the needs of the coastal transport links at their best and exchange information and experience.

Although the users of the sea transport are starting to change their opinion about the coastal transport linking, one of the biggest obstacles in its development is the fact that the type of transport described has not been considered equal constituent part of the intermodal transport chain yet. A certain number of shipping agents still consider it as inadequate to fulfil the conditions of time, frequency, flexibility and reliability related to transport itself. The only criteria possible to fulfil is a safety demand.

In order to eradicate such way of thinking and practising by shipping agents, it is necessary to pay more attention to the programme mentioned and ensure spreading all accessible information about the potential of it.

4 CHARACTERISTICS OF THE *ECOBONUS* AND THE ITALIAN EXPERIENCE

The *Ecobonus* is an initiative presented by the Italian government aiming towards promoting the use of the sea highways network. The *Rete Autostrade Mediterranee* company established 2004 supports and coordinates activities of the development of sea highways services on the national (Italian) and European level. The *Ecobonus* is directed towards shipping companies which should prefer sea transport to existing road one. The shipping companies presently using advantages of the *Ecobonus* could be partners to other shipping or ferry companies under the basic condition of transporting freight on the same route at least 80 times a year. In order to be included in the project and to gain a right to refund financial means, relatively part of costs mentioned, a shipping agency is supposed to make an application with the Italian Ministry of Transport by 31 January of the following year for the current one. The received application forms are treated and approved by the Committee appointed by the Ministry. In order to claim financial refund, the company is obliged to preserve the number of realized sea transports as well as the quantity of

Talijansko Ministarstvo prometa definiralo je 32 prihvatljive morske relacije koje ulaze u sustav *Ecobonusa* temeljem sljedećih kriterija:

- potencijalan broj prijevoza preusmjeren s prometnica
- mogućnost smanjenja prometnog zakrčenja na nacionalnim prometnicama
- zaštita okoliša.

U sustav *Ecobonusa* nisu ušle relacije prema sardinskim lukama kao i relacije između talijanskih luka, te luka u Albaniji, Hrvatskoj, Grčkoj, Libiji, Malti, Crnoj Gori, Maroku, Tunisu i Turskoj, budući da one ne predstavljaju alternativu cestovnom prometu.

Ecobonus inicijativa se temelji na morskoj udaljenosti, "uštedenoj" kopnenoj udaljenosti te smanjenim vanjskim troškovima koje predstavljaju plinovi koji uzrokuju staklenički učinak, atmosfersko zagađenje, buka, prometne nesreće, rasipanje goriva, prometno zakrčenje i sl.

Prema navedenim kriterijima prijevoznici su imali mogućnost odabrati nove luke, koje nisu bile na listi odabranih od strane Ministarstva pod uvjetom da se njima redovito koriste i ne predstavljaju konkurenciju postojećim lukama, na sljedećim relacijama:

- Sjeverni Jadran, južni Jadran i Jonsko more
- Tirensko more (sjever i jug)
- Tirensko more te francuske i španjolske luke.

Prema planu, *Ecobonus* je trebao biti predstavljen u 2007. godini te zaključen 2009. godine, međutim, talijansko Ministarstvo infrastrukture produžilo je rok do 2010. godine, definirajući nove relacije uključene u projekt:

- Chioggia – Augusta
- Salerno – Termini Imerese
- Civitavecchia – Trapani.

Potencijalno najfrekventnije relacije su [7]:

Nacionalne relacije (talijanske):

- Messina – Salerno (Sicilija – Sjeverna Italija)
- Palermo – Napoli (Sicilija – Sjeverna Italija)
- Catania – Napoli (Sicilija – Sjeverna Italija)
- Catania – Ravenna (Sicilija – Sjeverni Jadran)
- Catania – Genova (Sicilija – Ligursko more)
- Palermo – Genova (Sicilija – Ligursko more)
- Palermo – Livorno (Sicilija – Ligursko more)
- Trapani – Livorno (Sicilija – Ligursko more)

goods/freight transported in the period from the following three years starting with the day when making a claim for stimulation. The *Ecobonus* fund was given financial means of 231 million Euros total which are to be divided throughout three years [7].

The Italian Ministry of Transport defined 32 acceptable sea routes included in the *Ecobonus* system according to the following criteria:

- a potential number of transports diverted from road ways,
- a possible reduction of traffic jams on national traffic ways
- environment protection

The *Ecobonus* system did not include routes towards Sardinian ports, neither routes between Italian ports and ones in Albania, Croatia, Libya, Malta, Montenegro, Morocco, Tunis and Turkey, since they do not represent an alternative to road traffic.

The *Ecobonus* initiative is based on the sea distance, "saved" land distance and reduced external costs caused by gases which are a reason for the green house effect, atmospheric pollution, noise, traffic accidents, fuel spending, traffic jams and similar.

According to the criteria stated hereby, the transporters have been given the option to select new ports not stated in the list chosen by the Ministry, all under the condition being a regular use of them and not representing competition to existing ones, on the routes as follows:

- the North Adriatic, the South Adriatic, and the Ionic Sea,
- the Tyrrhenian Sea (North and South)
- the Tyrrhenian Sea , and French and Spanish ports.

According to the plan, the *Ecobonus* should have been presented in 2007 and completed in 2009. However, the Italian Ministry of Infrastructure prolonged the deadline to 2010, defining new routes included in the project:

- - Chioggia – Augusta
- - Salerno – Termini Imerese
- - Civitavecchia – Trapani

Possibly most frequent routes are [7] as follows:

Zemljovid 2. Ecobonus relacije i luke
Map 2 Ecobonus routes and ports



Izvor/Source: Evaluation of the Italian Ecobonus scheme in the context of a possible wider application at the EU level, Annex to Interim Report “There vision of the Motorways of the Sea Initiative”, European Commission, May 19, 2011.

Međunarodne relacije:

- Civitavecchia – Barcelona (Italija – Španjolska)
- Genova – Barcelona (Italija – Španjolska)
- Livorno – Barcelona (Italija – Španjolska)
- Livorno – Valencia (Italija – Španjolska)
- Salerno – Valencia (Italija – Španjolska)
- Civitavecchia – Toulon (Italija – Francuska).

Talijansko Ministarstvo prometa prema Od-luci od 8. siječnja 2008. godine definiralo je po-stotke povrata sredstava po odbitku poreza na kupljene trajektne karte. Visina postotka ovi-sna je o dužini relacije kao i broju prijevoza ostvarenih na jednoj relaciji. Na ostvarenim na-cionalnim relacijama od 80 do 1.599 prijevoza, u 2007. godini ostvareno je 20% povrata sred-stava, dok je u 2008. i 2009. godini ostvareno 28% povrata sredstava. Za više od 1.600 prije-

National routes (Italian):

- Messina – Salerno (Sicily – North Italy)
- Palermo – Naples (Sicily- North Italy)
- Catania – Naples (Sicily – North Italy)
- Catania – Ravenna (Sicily – North Adriatic)
- Catania – Genoa (Sicily – Ligurian Sea)
- Palermo – Genoa (Sicily – Ligurian Sea)
- Palermo – Livorno (Sicily – Ligurian Sea)
- Trapani – Livorno (Sicily – Ligurian Sea)

International routes:

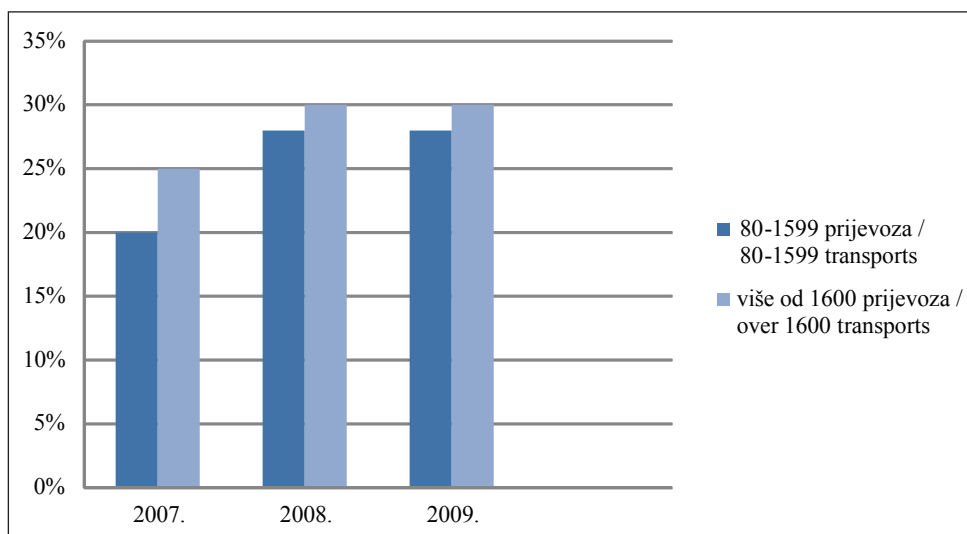
- Civitavecchia – Barcelona (Italy – Spain)
- Genova – Barcelona (Italy – Spain)
- Livorno – Barcelona (Italy – Spain)
- Livorno – Valencia (Italy – Spain)
- Salerno – Valencia (Italy – Spain)
- Civitavecchia – Toulon (Italy – France)

Tablica 1. Postotak povrata sredstava na nacionalnim relacijama
Table 1 Percentage of refund means on national routes

Godina Year	80 – 1.599 prijevoza 80 – 1599 transports	Više od 1.600 prijevoza Over 1600 transports
2007.	20%	25%
2008.	28%	30%
2009.	28%	30%

Izvor/Source: www.England-tir.it/servizi/Ecobonus/ecobonus/ecobonus_en.php

Grafikon 1. Postotak povrata sredstava na nacionalnim relacijama s obzirom na broj prijevoza
Graph 1 Percentage of refund means on national routes considering the number of transports



Izvor/Source: izradili autori/made by the authors

voza, u 2007. godini ostvareno je 25% povrata sredstava, dok je u 2008. i 2009. godini povrat sredstava bio 30%.

U razdoblju od 2007. do 2009. godine evidentan je porast povrata sredstava za ostvarene prijevoze na nacionalnim relacijama. Porast se odnosi na prijelaz iz 2007. na 2008. godinu, dok je 2009. godine postotak povrata ostao nepromijenjen. Za broj prijevoza od 80–1.599 porast povrata sredstava bilježi porast s 20% na 28 %, dok je za više od 1.600 prijevoza na jednoj relaciji zabilježen porast s 25% na 30% povrata sredstava.

Na internacionalnim relacijama za 80 do 1.599 prijevoza, u 2007., 2008. i 2009. godini ostvarena je stopa povrata sredstava 20% – 15% – 10% ovisno o udaljenosti luka. Na više od 1.600 prijevoza u 2007., 2008. i 2009. godini

According to the decision, dated by 8 January 2008, the Italian Ministry of Transport defined the percentage of refund means after deducting the tax on ferry tickets bought. The percentage amount depends on both the route length and the number of transports executed on one route.

In 2007, 20% refund was made on performed national routes between 80 and 1599 transports accomplished, while in 2008 and 2009 ,28% refund was carried out. For over 1600 transports in 2007, 25% refund was made, while in 2008 and 2009 the amount was 30%.

In the period between 2007 and 2009, the increase of refund means on carried out transports on national routes is evident. The increase refers to the transition from 2007 to 2008, while the percentage of refund in 2009

Tablica 2. Postotak povrata sredstava na internacionalnim relacijama
Table 2. Percentage of refund means on the international routes

	80 – 1.599 prijevoza 80 – 1599 transports	više od 1.600 prijevoza over 1600 transports
Relacije A / Routes A Civitavecchia/Barcelona, Civitavecchia/Taragona, Civitavecchia/Toulone, Livorno/Barcelona, Palermo/ Valencia, Salerno/Tarragona, Salerno/Valencia	20%	25%
Relacije B / Routes B Livorno/Tarragona, Livorno/Valencia	15%	18,75%
Relacije C / Routes C Genova/Algeciras, Genova/Barcelona	10%	12,50%

Izvor/Source: www.England-tir.it/servizi/ECobonus/ecobonus/ecobonus_en.php

ostvarena je stopa povrata sredstava 25% – 18,75% – 12,50% [3].

Na internacionalnim relacijama u sve tri godine postotak povrata sredstava iznosio je ovisno o udaljenosti relacija, za 80 – 1.599 prijevoza – 20% na relacijama A, 15% na relacijama B, 10% na relacijama C; za više od 1.600 prijevoza – 25% na relacijama A, 18,75% na relacijama B, te 12,50% na relacijama C.

Promet ostvaren putem projekta *Ecobonus* iznosi 20 – 30% ukupnog talijanskog nacionalnog prometa, te 10 – 25% internacionalnog prometa (zastupljene su uglavnom Francuska, Španjolska, Tunis i Hrvatska).

5. TROŠKOVI I KORISTI *ECOBONUS*

Pod pretpostavkom da je *Ecobonus* zaslužan za polovicu porasta prometa na morskim relacijama dok je za drugu polovicu zaslužan porast tržišta, može se procijeniti da je *Ecobonus* investicija izazvala povećanje od 218.172 prijevoza u razdoblju od 2007. do 2009. godine. Pritom je nemoguće izolirati učinke samog projekta od ostalih učinaka koji su utjecali na povećanje broja prijevoza te se kalkulaciji troškova i koristi osim s 50% prilazi i s 25% i 75% vjerojatnošću. Podjelom ostvarenih promjena/povećanja na nacionalne i međunarodne prijevoze, uzimajući u obzir uštedene prevezene kilometre te primjenjujući realne interne i vanjske troškove, moguće je procijeniti neto korist.

Talijanska Vlada je u razdoblju od tri godine uložila ukupno 169,3 milijuna € (45,7 mil. € u 2007. godini, 61,6 mil. € u 2008. godini te 62 mil. € u 2009. godini). U istom razdoblju u sustav *Ecobonusa* uključeno je ukupno 1.435.916 prijevoza s prosječnom isplatom od 117,9 € po prijevozu. Pod pretpostavkom 50% vjerojatnosti (pola porasta prijevoza na prihvatljivim relacijama je reakcija na financiranje) 25,7 mil. € (117,9 €/prijevoz x 218.172 prijevoza) je putem *Ecobonusa* investirano u "preusmjerene" prijevoze. Ostalih 1.217.744 financiranih prijevoza na odabranoj bi relaciji bilo prevezeno i bez prednosti *Ecobonusa*.

Preusmjereni prijevozi prije kalkulacije dijele se na nacionalne i međunarodne zbog različitih karakteristika morskog i cestovnog prijevoza. Primjenjuje se također "pravilo polovice" kako bi se dalo prostora različitim iznosima koji se prijevoznicima isplaćuju.

stays the same. There is an increase from 20% to 28% in the number of refund claims for the number of transports between 80 and 1599, while refund claims for over 1600 transports on one route increased from 25% to 30%.

On the international routes for 80 to 1599 transports a refund rate increase was realized in 2007, 2008 and 2009 in the amount of 20%, 15%, 10%, depending on the port distance. Refund rates of 25% / 18.7% / 20.50% [3] were realized in 2007, 2008 and 2009 for the number of over 1600 transports.

On the international routes during all three years, the percentage of refund means depended on the distance of the route, for 80-1599 transports 20% on routes A, 15% on routes B, 10% on routes C; for over 1600 transports it was 25% on routes A, 18.75% on routes B, and 12.50% on routes C.

The traffic realized by means of the *Ecobonus* project is 20-30% out of the Italian national traffic in total, and 10-25% out of the international traffic (represented mostly by France, Spain, Tunis and Croatia).

5. COSTS AND BENEFITS OF THE *ECOBONUS*

Supposedly, the *Ecobonus* is to take credit for a half of traffic increase on sea routes while for the other half market increase could be credited. Consequently, the *Ecobonus* investment might be estimated as to cause increase by 218 172 transports in the period from 2007 to 2009. It is impossible hereby to isolate effects of the project itself from the other ones affecting the increase of transport. Thus, the costs calculation and benefits ones, except for that with 50%, can be approached with a 25% and 75% probability. It is possible to estimate net benefit by means of dividing the realized charges /increase to national and international transports, taking in account both saved mileage carried out and execution of real internal and external costs.

The Italian government invested during a three year period 163.3 mio € in total (45.7 mio € in 2007 / 61.6 mio € in 2008 / 62 mio € in 2009). During the same period, 1 435 916 transports with an average pay out of 117.9 € per transport were included in the *Ecobonus* system. Presuming 50% probability (half the transport increase on the acceptable routes is a reac-

Tablica 3. Analiza troškova i koristi (nacionalna – Italija)

Table 3 Costs and benefits analysis (national – Italy)

				50% vjerojatnost 50% probability
Preusmjeren prijevoz u 3 g. <i>Diverted transport in 3 years</i>	Broj prijevoza <i>Number of transports</i>	a		154.998
Prosječna cestovna udaljenost <i>Average road distance</i>	Km (Sicilija – Rim) <i>Km (Sicily/Rome)</i>	b		918
Morska udaljenost <i>Sea distance</i>	Km (Sicilija – Rim) <i>Km (Sicily/Rome)</i>	c		461
<i>Ecobonus</i> po prijevozu <i>Ecobonus per transport</i>	€/prijevoz <i>€/transport</i>	d		118
Koristi korisnika <i>User's benefits</i>	Polovica ukupno isplaćenog <i>Ecobonusa</i> po preusmjerenom prijevozu <i>Half the paid Ecobonus per diverted transport</i>	e	$a \times (d / 2)$	9.135.199
“Uštedeni” cestovni km <i>“Saved” road km</i>	cestovni km <i>road km</i>	f	$a \times b$	142.288.164
Ekterne koristi <i>External benefits</i>	0.21 € po km <i>0.21 € per km</i>	g	$0.21 \times f$	29.880.514
Morski km <i>Sea km</i>	morski km <i>sea km</i>	h	$a \times c$	71.476.595
Eksterni troškovi trajekta <i>External ferry costs</i>	0.05 € po km <i>0.05 € per km</i>	i	$0.05 \times h$	3.573.830
Eksterni troškovi cestarina <i>external toll costs</i>	0.21 € po km <i>0.21 € per km</i>	j	$a \times 0.21 \times 200$	6.509.916
Neto korist <i>Net benefit</i>		k	$e + g - i - j$	28.931.968

Izvor: Izradili autori prema www.England-Tir.it/servizi/Ecobonus/ecobonus/ecobonus_en.php

Source: Made by the authors according to www.England-Tir.it/servizi/Ecobonus/ecobonus/ecobonus_en.php

Proizašlih 10% pozitivan je ishod zbog znatno kraćih morskih relacija koje nude uštedu troškova po cestovnom kilometru. Svaki preusmjereni transfer ostvaruje 600 morskih kilometara, a “uštedi” oko 1.000 cestovnih kilometara.

Ecobonus investira od 98 € do 127 € (u prosjeku 117.9 €) po prijevozu i ostvaruje ukupnu dobit od 192 € po prijevozu (nacionalna i međunarodna ostvarena neto korist po ukupnom broju preusmjerenih prijevoza), odnosno neto dobit od 74 € koja predstavlja ukupnu dobit po preusmjerenom prijevozu umanjenu za istovrsne ukupne troškove (192 € – 118 €). Može se zaključiti da iako je udio koristi po preusmjerenom prijevozu pozitivan, on iznosi svega 10% uloženi sredstava.

tion to finance), 25.7 mio € (117.9 € / transportation x 218 177 transports) were invested by the Ecobonus into “diverted transports”. The rest of 1 217 744 financed transports on the route chosen would be transported even without benefits provided by the Ecobonus. Diverted transports before the calculation are divided to national and international ones on the ground of different characteristics of sea and road transport. The “ rule of a half” is applied as well in order to give room to different amounts paid to the shipping companies

The resulting 10% are a positive outcome on account of much shorter sea routes offering to save costs per road km. Each diverted transfer makes 600 sea km and “saves” about 1000 road km.

The Ecobonus invests from 98€ to 127€ (117.9€ o average) per transport and makes a

Tablica 4. Analiza troškova i koristi (međunarodna)
Table 4 Costs and benefits analysis (international)

				50% vjerojatnost 50% probability
Preusmjeren prijevoz u 3 g. <i>Diverted transport in 3 years</i>	Broj prijevoza <i>Number of transports</i>	A		63.174
Prosječna cestovna udaljenost <i>Average road distance</i>	Km (Livorno – Tarragona) <i>Km (Livorno – Tarragona)</i>	B		1.186
Morska udaljenost <i>Sea distance</i>	Km (Livorno – Tarragona) <i>Km (Livorno – Tarragona)</i>	C		806
Ecobonus po prijevozu <i>Ecobonus per transport</i>	€/prijevoz <i>€/transport</i>	D		118
Koristi korisnika <i>User's benefits</i>	Polovica ukupno isplaćenog Ecobonusa po preusmjerenom prijevozu <i>Half the paid Ecobonus per diverted transport</i>	E	$A \times (D / 2)$	3.723.320
“Uštedeni” cestovni km <i>“Saved” road km</i>	cestovni km <i>road km</i>	F	$A \times B$	74.924.364
Ekterne koristi <i>External benefits</i>	0.21 € po km <i>0.21 € per km</i>	G	$0.21 \times F$	15.734.116
Morski km <i>Sea km</i>	morski km <i>sea km</i>	H	$A \times C$	50.893.937
Eksterni troškovi trajekta <i>External ferry costs</i>	0.05 € po km <i>0.05 € per km</i>	I	$0.05 \times H$	2.544.697
Eksterni troškovi cestarina <i>External toll costs</i>	0.21 € po km <i>0.21 € per km</i>	J	$A \times 0.21 \times 300$	3.979.962
Neto korist <i>Net benefit</i>		K	$E + G - I - J$	12.932.777

Izvor: Izradili autori prema www.england-tir.it/servizi/Ecobonus/ecobonus/ecobonus_en.php

Source: Made by the authors according to www.england-tir.it/servizi/Ecobonus/ecobonus/ecobonus_en.php

6. ECOBONUS – MOGUĆNOST PRIMJENE U REPUBLICI HRVATSKOJ

Republika Hrvatska kao mediteranska država svakako ima mogućnosti i potencijala za uključivanje u ovu inicijativu. Samim smještajem, duboko uvučena u europski kontinent u velikoj je prednosti za primjenu ovakve inicijative. Stvaranjem kvalitetnije prometne, informatičke, logističke komunikacije Hrvatska mora djelovati u pravcu kvalitetnijeg povezivanja s Europom, uključenjem hrvatskih prometnih mreža u projekte europskog prometnog sustava što je preduvjet za proces europske integracije.

Kako je u Republici Hrvatskoj u proteklih 10 godina povećana ukupna kilometraža mreže autocesta, povećava se i prijevoz robe kopnom. Tendencija je rast prijevoza tereta “morskim autocestama”, odnosno prijevoza morem po-

profit in total of 192€ per transfer (national and international realized net benefit per diverted transports in total), relatively a net profit 74€ being a total profit per diverted transport reduced for the same costs in total (192€ -118€). Therefore, although being positive per diverted transport, a benefit share amounts to 10% of the means invested.

6. ECOBONUS – IMPLEMENTATION POSSIBILITY IN THE REPUBLIC OF CROATIA

Being a Mediterranean country, Croatia has a possibility and potential for joining that initiative anyhow. Positioned deep into the European continent, it has a big advantage in order to implement such initiatives. Creating better traffic, information, and logistic communication, Croatia is to act in the direction towards both more qualitative connections with Europe and including a

Tablica 5. Analiza troškova i koristi (nacionalna i međunarodna)

Table 5 Costs and benefits analysis (national and international)

				50% vjerojatnost 50% probability
Ukupni troškovi <i>Total costs</i>	Troškovi preusmjerenih prijevoza <i>Diverted transports costs</i>	L	$(a \times d) + (A \times D)$	25.717.038
Ukupna korist <i>Total benefits</i>	Zbroj nacionalne i međunarodne koristi <i>Addition of national and international benefit</i>	M	$k + K$	41.864.745
Neto korist <i>Net benefits</i>	Ukupno € u razdoblju od 3 g. <i>€ total in 3 years</i>	N	$M - L$	16.147.707
Neto korist po preusmjerenom prijevozu <i>Net benefits per diverted transport</i>	Broj preusmjerenih prijevoza <i>Number of diverted transports</i>	O	$a + A$	218.172
	Ukupan trošak po preusmjerenom prijevozu € <i>Total cost per diverted transport €</i>	P	L / O	118
	Ukupna dobit po preusmjerenom prijevozu € <i>Total profit per diverted transport €</i>	Q	M / O	192
	Neto dobit po preusmjerenom prijevozu € <i>Net profit per diverted transport €</i>	R	$Q - P$	74
Povrat na investiciju <i>Return on investment</i>	Povrat dobiti <i>Return on profit</i>		$N / 169.3 \text{ mil. EUR}$	10%

Izvor: Izradili autori prema Evaluation of the Italian *Ecobonus* scheme in the context of a possible wider application at the EU level, Annex to Interim Report The Revision of the Motorways of the Sea Initiative, European Commission, May 19, 2011.

Source: Made by the authors according to Evaluation of the Italian *Ecobonus* scheme in the context of a possible wider application at the EU level, Annex to Interim Report "The Revision of the Motorways of the Sea Initiative, European Commission, May 19, 2011.

sebno zbog stalnog rasta cijena goriva i cestari-
na kao i smanjenja zagađenja, smanjenjem bro-
ja teških kamiona na prometnicama u Republici
Hrvatskoj.

Hrvatski lučki sustav sastoji se od šest javnih
luka od međunarodnog značenja: Rijeka, Za-
dar, Šibenik, Split, Ploče i Dubrovnik. Tenden-
cija je skretanje većine kopnenog prijevoza te-
reta na morske putove, posebice tereta koji se
iz kopnenog dijela prevozi prema lukama na
jugu Hrvatske. Tu bi značajnu ulogu mogla odi-
grati luka Rijeka do koje bi se teret mogao do-
voziti cestovnim i željezničkim prijevoznim
sredstvima, a od Rijeke prema jugu brodovima.

Otvorena je mogućnost povezivanja luka Ri-
jeka, Zadar, Split i Ploče u tuzemnom prometu
što je posebno značajno za dužobalnu plovidbu.
Također se sve nacionalne luke putem "morske
autoceste" jugoistočne Europe mogu povezati s
ostalim lukama, kako na Jadranu tako i u Sre-
dozemlju, ali i na Atlantiku.

Razvoj međuobalnog prometa, u granicama
svojih mogućnosti, Hrvatska je usmjerila u

Croatian road network in projects of the Euro-
pean traffic network, which is one of the condi-
tions for the process of the European integra-
tion. Since a total mileage of the highway
network has been increased in Croatia in the last
10 years, the goods transport is increasing as
well. The tendency is growth in freight transport
by "highways" relatively transport by sea be-
cause of a constant rise of fuel prices and tolls as
well as the pollution caused by heavy trucks on
roads in the Republic of Croatia.

The Croatian port system consists of six public
ports important internationally: Rijeka, Zadar,
Šibenik, Split, Ploče and Dubrovnik. There is a
tendency of diverting most land freight transport
to sea ways, in particular the freight which is
transported from land towards the ports in the
south of Croatia. The significant role might be
taken over by the port of Rijeka to which freight
could be transported both by road and by rail,
and from Rijeka towards south by ship.

There opens a possibility of linking the ports
of Zadar, Split and Ploče within a domestic
traffic network being of great importance for

pravcu projekta tzv. "plavih autocesta", međuo- balnim povezivanjem na linijama između tali- janskih i hrvatskih luka od Ravenne do Bakra te od Ancone prema Zadru i Pločama.

Prvi važan korak u razvoju međuo- balnog pove- zivanja u Hrvatskoj bilo je osnivanje Udruge za promicanje međuo- balnog prometnog pove- zivanja za čije je djelovanje u 2006. godini iz dr- žavnog proračuna osigurano 250.000,00 kn. Pri- tom se priobalno povezivanje ne ograničava isključivo na povezivanje luka već se širi na okvire intermodalnog prijevoza.

Ulaskom u sustav *Ecobonus* inicijative Repu- blica Hrvatska bi postala konkurentnija na eu- ropskom i svjetskom tržištu, ali i ušla u sustav koji je trenutno jedan od najstabilnijih te kao takav jamči povećanje ekonomske koristi. Na- dalje, zbog svoje povoljnosti povećava promet teretima, omogućuje rast brodograđevne indu- strije što podrazumijeva upošljavanje kapacite- ta hrvatskih brodogradilišta poradi veće potre- be za plovilima u cijeloj regiji, povećava sigurnost kopnenim sustavima (prometnicama i željezničkim prugama), smanjuje zagađenje, ali i jača sveopće gospodarstvo države.

6.1. Standardizacija dokumentacijske procedure i usklađenje carinskih prava

Jedna od glavnih kočnica bržeg razvoja prio- balnog prometnog povezivanja je opsežna do- kumentacija koja ovisno o državi, a uglavnom je riječ o velikom broju potrebnih dokumenata što predstavlja problem u obaveznoj admini- strativnoj proceduri. Inicijativom za standardi- zacijom određenih formalnosti, koja je na snazi od 2003. godine, pri dolasku, odnosno odlasku brodova iz luka država članica Europske unije brojni nacionalni obrasci zamijenjeni su univer- zalnim.

Vodič o carinskim procedurama koji se sva- kodnevno primjenjuje u procesu priobalnog prometnog povezivanja predstavljen je u ožuj- ku 2002. godine od strane Europske komisije, a ima za cilj na jednom mjestu ponuditi informa- cije o obvezama i mogućnostima koje zahtijeva- ju carinska pravila Europske unije te dokazati da carinske procedure nisu jako složene i da ne predstavljaju prepreku u korištenju usluga prio- balnog prometnog povezivanja. Temeljem konzultacija i budućih razvoja na polju carine Eu- ropska komisija ga periodično nadopunjuje.

coasting. At the same time, all national ports might join the other ones by the sea motorways both on the Adriatic and the Mediterranean as on the Atlantic.

Croatia directed development of the inter- coastal traffic, within its limits, towards the projects of the so called "blue highways", by means of inter-coastal linking together on the routes between the Italian and Croatian ports from Ravenna to Bakar, and from Ancona to Zadar and Ploče.

The first important step in the development of the inter-coastal joining in Croatia was to es- tablish a union for promoting the inter-coastal traffic linking whose activities in 2006 were made possible by 250 000,00 KN invested from the government budget. Coastal joining is here- by not limited to join the ports exclusively, but it is spreading towards intermodal transport.

By entering the system of the Ecobonus initi- ative, the Republic of Croatia might become more competitive both on the European and international market. It might enter the system, one of the most stable at present, which as such stands for increase of economic use. On the ground of its favours, it also increases freight traffic, it enables growth of the shipbuilding in- dustry, consequently providing capacity em- ployment of the Croatian ports because of in- creased needs for vessels regionally; it increases safety on land system of road and railways; it reduces pollution, and, on the other hand, it strengthens the overall economy of the country.

6.1. Standardization of documents procedure and coordination of customs rights

One of the main obstacles in quicker devel- opment of the coastal traffic joining is extensive documentation which is, depending on a coun- try – and there are usually numerous docu- ments required – a problem related to the ob- ligatory administrative procedure.

According to the since 2003 enforced initia- tive to standardize specific formalities for ships leaving or entering the European Union mem- bers' ports, several national forms have been replaced by universal ones.

A manual on customs procedures, being in use daily in a process of coastal traffic linking, was presented in March 2002 by the European Commission. The handbook aims at offering in-

Kako carinsko zakonodavstvo Republike Hrvatske mora biti usklađeno s carinskim zakonodavstvom Europske unije, kontinuirano se prate izmjene carinskih propisa Europske unije. Carinska uprava radi na pripremama za implementaciju novih sustava koji će podržati provođenje carinskih postupaka, a u skladu s tim nužno je razviti i komunikaciju u elektroničkom obliku [14].

6.2. Razvoj intermodalnog prijevoza u jadranskoj regiji

Jadranska regija svojim povoljnim zemljopisnim položajem te razvijenom infrastrukturom i prometnim sustavom ima preduvjete za razvoj mnogih industrija što je posebno izraženo u sjevernom dijelu Jadrana u kojem je uz intenzivno korištenje cestovnog prijevoza došlo do zagušenosti prometne infrastrukture i zagađenja okoliša. Pozitivan utjecaj na okoliš i razvoj gospodarstva u jadranskoj regiji ciljevi su razvoja intermodalnog prijevoza.

U tom smislu implementacija modela poticaja razvoja intermodalnog prijevoza u jadranskoj regiji predviđa niz aktivnosti, usklađenih sa smjernicama Europske unije:

1. **Identifikacija uskih grla u regionalnom intermodalnom prijevoznikom sustavu** ima za cilj identificirati i umanjiti prepreke bilo koje vrste koje otežavaju nesmetano funkcioniranje prijevoza tereta i putnika u Europi. Do sada je "prikupljeno" gotovo 200 uskih grla, a ostalo neriješeno samo 40-ak.
2. **Informatička baza podataka postojećih prijevoznih servisa** podrazumijeva pružanje potpune informacije o mogućim pravcima, modelima, trajanju prijevoza, cijeni te potrebnim dokumentima kako bi se potakla što veća iskoristivost intermodalnih kapaciteta.
3. **Promocija intermodalnog prijevoza u jadranskoj regiji** – Europska komisija izdala je politiku *Short Sea Shippinga* (naziv za transport tereta i putnika između europskih luka, ali i obližnjih neeuropskih luka, koristeći pritom vodene pravce koji barem dijelom uključuju more ili ocean) kao sastavne dijelove logističkog lanca europskog transportnog sustava. Za promociju SSS-a nužno je provesti sljedeće korake:
 - plan promotivnih aktivnosti
 - provođenje promocije

formation on duties and options required by the customs rules of the European Union. It also aims at proving that the customs procedures are neither very complicated nor an obstacle when using services of coastal traffic linking. Based on consulting and future development in the customs area, the manual is improved periodically by the European Commission.

As the customs legislation of the Republic of Croatia is to be in accordance with the one of the European Union, the modifications of the customs rules made by the European Union have been constantly followed. The customs administration is working on preparations to implement new systems which are to support the enforcement of customs procedures. Accordingly, it is necessary to develop electronic communication [14].

6.2. Development of intermodal transport in the adriatic region

The Adriatic region with its favourable geographical position and developed infrastructure along with the traffic network is predestined to develop several industries, which is evident especially in the north Adriatic after traffic congestion of the infrastructure and environmental pollution, along with intense use of the road network, have occurred. The objectives of the intermodal transport development are two in number: a positive influence on the environment, and development of the economy in the Adriatic region.

In that sense, the implementation of the incentive intermodal transport development model in the Adriatic region foresees a variety of activities coordinated with the directives of the European Union's;

1. **Identification of bottlenecks in the regional intermodal carrier system** is to recognize and reduce any obstacles which make undisturbed functioning of freight and passenger transport in Europe difficult. By now, nearly 200 such spots have been recorded. 40 of them remain unsolved.
2. **Information data base of the existing carrier services** provide complete information of possible directions, patterns, transport duration, price, and documents required to motivate intermodal capacity utilization the more the better.

- definiranje koncepta promotivnih centara
- smjernice osnivanja te iniciranje osnivanja novih intermodalnih promotivnih centara u regiji.

4. Uvođenje pokazatelja kvalitete u jadranskom intermodalnom prijevoznikom sustavu – nepostojanje specijaliziranih pokazatelja kvalitete rada i servisa te nedovoljno implementirani postojeći pokazatelji (ISO 9001 i ISO 14001) osnovni su problemi prijevoznikog sustava vezani za sustav praćenja kvalitete. Koraci u funkciji uvođenja pokazatelja kvalitete su:

- analiza pokazatelja kvalitete u jadranskom intermodalnom prijevoznikom sustavu
- model osiguranja kvalitete jadranskih luka i terminala
- radionice
- implementacija ISO certifikata 9001:2008 Sustav upravljanja kvalitetom (*Quality Management System*) i ISO 14001:2004 Sustav upravljanja okolišem (*Environmental Management Systems*).

7. ZAKLJUČAK

Evidentno je da ovaj inovativni plan ima velike prednosti. Od rješavanja problematike prometnih koridora do uvođenja promjena i modernizacije na prometnim tržištima na kojima se primjenjuje. No, ima i nedostataka kao što je smanjenje efikasnosti zbog još uvijek niskog omjera preusmjerenih prijevoza s obzirom na broj financiranih prijevoza dovodeći time u pitanje njegovu održivost. Financiranje se mora primjenjivati kontinuirano s tendencijom smanjenja povrata sredstava. Plan *Ecobonusa* konkretno, ovisi o prepoznatljivosti onih morskih relacija koje izbjegavaju narušavanje konkurencije s naglaskom na relacijama koje nisu sastavni dio plana.

S *Ecobonusom* ili bez njega, Hrvatska se kao buduća članica Europske unije mora uključiti u aktivnosti navedenih modela, mora raditi na razvoju intermodalnih terminala, razvijati suradnju s državama u regiji te nastojati razvijati međuočno prometno povezivanje kako bi ono postalo dijelom složenog europskog intermodalnog pristup.

Temeljem svega navedenog može se zaključiti da je pomorski prijevoz postao povoljnija al-

3. Promotion of intermodal transport in the Adriatic region – the European Commission issued a policy of “*Short Sea Shipping*” (a term defining freight and passenger transport among the European ports, and also among nearby non-European ports, using hereby water ways which at least partly include the sea or the ocean) that is constituent part of a logistic chain within the European transport system. In order to promote the SSS it is necessary to perform as follows:

- promotion activities plan
- promotion execution
- definition of a promotion centres concept
- directives to establish and initiate the basic new intermodal promotion centres regionally

4. Introduction of quality indicators in the Adriatic intermodal carrier system – non-existence of specialized indicators of work and services quality, along with insufficiently implemented existing indicators (ISO 9001 and ISO 14001), are major problems of the carrier system connected with the quality observation system. The steps to introduce the quality indicators are as follows:

- analysis of the quality indicators in the Adriatic intermodal carrier system
- quality guarantee model of the Adriatic ports and terminals
- workshops
- implementation of ISO certificate 9001:2008 “Quality Management System” and of ISO certificate 14001:2004 “Environmental Management System”.

7. CONCLUSION

It is evident for that innovative plan to have great advantages. From solving traffic corridors problems to introducing changes and modernization on the traffic markets where being used. However, it also displays disadvantages like reduction of efficiency still based on the low proportion of diverted transports if considering the number of financed ones, which makes the idea actually unsustainable. Financing should be applied and constantly aiming towards decrease of refund means.

The Ecobonus plan actually depends on recognizing those sea routes that avoid violation of

ternativa svim prijevozničkim tvrtkama koje žele zadržati vodeće mjesto na tržištu. Osim toga, navedena inicijativa državi jamči ekonomsku korist, povećava sigurnost na prometnicama te povoljno utječe na okoliš.

the competition, and the routes which are not constituent part of the plan are to be even more emphasized. With or without the *Ecobonus*, Croatia as a future member of the European Union is supposed to join activities of the model mentioned hereby, furthermore, to work on developing the intermodal terminals, to develop cooperation with the countries in the region, as well as to put effort in developing inter-coastal traffic connections, so it might become part of complex European intermodal approach to it.

Based on the stated hereby, a conclusion is to be made as follows: sea transport has become a more favourable alternative to all shipping companies that are to keep a leading position on the market.

Besides, the initiative stated hereby guarantees economic benefit for the country, it increases road safety, and it affects the environment in a friendly way.

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