The Development of Short Sea Shipping in the Eastern Mediterranean Region: Towards a Rational E.U. Freight Transport Policy

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Abstract

The rise in worldwide goods transport is an important factor in the increase of national GDP’s, but at the same time it poses serious threats in terms of the quality of life, mainly regarding the population in developed countries, who are however the main beneficiaries of the resulting economic growth. The E.U. has long now taken steps towards the protection of the environment and more generally in the direction of ameliorating the negative side effects stemming from the transport system. Policies to further promote short sea shipping may be viewed as an important element on the road to the development of East Mediterranean nations and the outlook for the coming decades, is that Short Sea Shipping may become the prevailing mode for freight transport in the region. An aid to this trend is the observed rapid development of Southeastern European nations and the subsequent appearance of new economic hubs.

1. The development of Short Sea Shipping in Europe

It is expected that the development and establishment of a single market, the liberalization of markets and the removal of all obstacles in trade will boost intra E.U. trade. Different perceptions of demand and the notion of just in time in production and therefore in transportation, point out the importance of time and also quality of service. In this context efficient and effective transport connections are of vital importance.

Within the frame of free and unbiased choice of transport means the promotion of Short Sea Shipping is based on the supply of a sustainable and efficient alternative solution for the products carried and the transport units that can be transported by all means of transport. Sea transport has many advantages to offer to the E.U. transport system since it contributes to the relief from pressured and congested road networks, the cohesion of the market as well the revitalization of regional ports and areas.

The continuous increase of Short Sea Shipping in Europe and the special focus of the European transport policy on seaborne trade is mainly attributed to the advantages that Short Sea Shipping shows. Within the context of sustainable mobility and development, there are three main reasons for promoting Short Sea Shipping (S.S.S.), and these include as reported by E.U.:
The promotion of the general sustainability of transport. S.S.S. is emphasized as an environmentally friendly and safe alternative, in particular, to congested road transport.

The strengthening of the cohesion and the facilitation of connections between different States and between regions in Europe and the revitalization of peripheral regions.

The increase of the efficiency of transport in order to meet current and future demands arising from economic growth. For this purpose, S.S.S. should be developed into an integral part of the logistic transport chain and also a door-to-door service.

The above justify the increasing effort of the European Union to increase the use of Short Sea Shipping as an alternative transport means within the E.U. and against the externalities the transport system shows (congestion, pollution, accidents etc) that burdens sustainable development.

According to the prevailing notion and as recommended by the European Union. Short Sea Shipping refers to the movement of cargo and passengers by sea between ports situated in the European area or between European ports and ports in third countries, that have a coastline and their sea is adjusted to the E.U. Short Sea Shipping includes the domestic and international maritime transport not including the ocean crossing that includes the feeder services (the fill and emptiness of the goods (mainly containers), the redirection from or towards an open sea service to one of these ports -hubs) along the coast to and from the islands, rivers and lakes. It is therefore referring also to the sea transport between the member states and Norway, Island and other members of the Baltic Sea as well as the N.E. Europe including the Black Sea and the Mediterranean Sea.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sea</th>
<th>Road</th>
<th>Inland Waterways</th>
<th>Rail</th>
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<tr>
<td>2005</td>
<td>1 525</td>
<td>1 724</td>
<td>129</td>
<td>392</td>
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<tr>
<td>2004</td>
<td>1 484</td>
<td>1 683</td>
<td>129</td>
<td>392</td>
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<td>2003</td>
<td>1 435</td>
<td>1 573</td>
<td>119</td>
<td>364</td>
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<td>2002</td>
<td>1 404</td>
<td>1 560</td>
<td>128</td>
<td>358</td>
</tr>
<tr>
<td>2001</td>
<td>1 388</td>
<td>1 518</td>
<td>129</td>
<td>359</td>
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<tr>
<td>2000</td>
<td>1 345</td>
<td>1 487</td>
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<td>1999</td>
<td>1 270</td>
<td>1 439</td>
<td>124</td>
<td>358</td>
</tr>
<tr>
<td>1998</td>
<td>1 220</td>
<td>1 382</td>
<td>125</td>
<td>370</td>
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<td>1997</td>
<td>1 193</td>
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<td>1995</td>
<td>1 133</td>
<td>1 250</td>
<td>117</td>
<td>358</td>
</tr>
<tr>
<td>1995-2005</td>
<td>34,6%</td>
<td>37,9%</td>
<td>10,2%</td>
<td>9,2%</td>
</tr>
</tbody>
</table>

Source: Eurostat, (1000 mio tonne-kilometres)
According to the E.U. the European Short Sea Shipping fleet constitutes the 40% of the world fleet, while at the same time, the open sea fleet is 50% of the corresponding world fleet. Great Britain possesses the first place between the E.U. Countries that are reported in short sea shipping, since British interests fleet transported 347 millions tons in 2004, occupying 16% on the total of Short Sea Shipping activity. Then, Italy is in the second place with 311 millions tones and percentage 14,4% and afterwards Holland with 11,8%.

The evolution of E.U. Freight Transport is presented in the table 1, for domestic and international intra European sea transport, according to which Sea transport has increased for almost 35% during the last ten years. Also if we add in the Sea transport the activity of the Inland Waterways, then the percentage of these two modes is about 42,3% for year 2005. This number shows the important place that occupies the Short Sea Shipping in freight transport in European Union.

2. The adoption of the Sustainable Development

The term “Sustainable Development”, was adopted internationally in 1992, afterwards the International Conference of the United Nations for the Environment, in Rio de Janeiro of Brazil. The content of this term, as it was proposed by the World Committee for the Environment and the Growth of United Nations (WCED) is: “the growth that satisfies the needs of present, without it decreases the possibility of next generations of satisfying their own needs”. This definition is the most popular, between above 100 other similar, that has been proposed since 1992.

In 1987, the International Committee for the Environment and the Growth of UN publishes her conclusions in the Report, titled “Our Common Future”, impressing with the most explicit way, the between now and then diffuse environmental concerns and electing the inefficiency of the few and fragmentary approaches of confrontation of environmental problems. At the same time, this Report, known as Brundtland Report, imports the term “Sustainable Development” as meter of evaluation and objective of policy for the current societies, appears the consequences that will today have the production and consumption practices in the future planet residents.

The environment is elected now as an important condition for the survival of human societies, but also a crucial parameter for the growth, while in the meantime it was appeared the interdependence between environmental revalorization, social prosperity and economic efficiency.

The International Conference for the Environment in Rio is memorable, because it accomplished to offers in the humanity a new form of viable and qualitative growth. The European Union in the decade that followed, but also the World Summit meeting for the Environment of United Nations, in 2002 in Johannesburg, they imposed on one side the triple importance of sustainable development (Economy - Social - Environmental), and on the other hand, the necessary regard of rational management of natural resources as necessary for the achievement of the growth. The European Union already has been adapted in the new data with the provisions of Treaty of Maastricht and the 6th Action Plan, and participates in the mechanisms of application.
3. Sustainable Transports, a new dimension in the Transport Sector

It is known that the last fifty years has been observed important increase of mobility of persons and goods that is almost parallel with that of Gross Domestic Product. This growth, while it has contributed in the social and economic progress, now appears to contribute negatively more and more in certain from the advantages, which it has involved.

In the problem of the transport demand, from the one hand, and the achievement environmental, economic and social objectives, on the other, various International Organizations (Organization for the Economic Collaboration and Development (OCDE), the International Energy Association (IEA), the European Conference of Ministers of Transports (ECMT), the European Union and a number of other Organizations and States Governments, organized programs and strategies for the achievement of sustainable development in the transports sector.

These programs and the strategies, underlined that the technical solutions are not only enough for the reduction of the environmental problems that are created by the transports activities. For this reason, they decided that we need a wider and systematic examination of the different factors that composes the sustainable development in the transports.

The approach begins, in 1994 from the OECD, with the definition of the Environmental Sustainable Transports (EST) and the engagement that the achievement of the EST, must be a fundamental aim of the transport policy. Thus Environmental Sustainable Transports are “these transports that do not place at risk the public health or the ecosystems and satisfy the needs for access according to (a) the use of renewable natural resources under their of renewal rhythms and (b) the use of not renewable natural resources under the rhythms of growth of renewable substitutes”.

More specifically, a Sustainable Transports System, is a system that considers during all his functional life that:

- it will generally satisfy, acceptable aims for the health and the environmental quality. For example, those that concern the air pollution as well as the noise and have been proposed by the World Health Organization (WHO)
- it will agree with the integrity of ecosystems,
- it will not have result the deterioration of negative world phenomena as the climatic change and the decrease of the ozone in the stratosphere.

In order to create the necessary criteria for the achievement of this international agreement, were agreed the common objectives and the models that will be followed. The OCDE determined six criteria, for the achievement of Environmental Sustainable Transports, that must be realized at the year 2030. These criteria are the follows:

- The emissions of oxides of nitrogen (NOx) that are connected with the transport activity, must be decrease, in the degree where are achieved the objectives for low levels of dioxide of nitrogen, levels of ozone and levels of deposition of nitrogen.
- The emissions of Volatile Organic Unions (VOCs) should be decreased in such point so that are avoided the excessively high levels of ozone and the emissions of carcinogenic VOCs that are produced from the mobility of all kind of vehicles.
- The climatic change should be blocked, achieving emissions of CO₂ from the use of mining fuels in the transports, according to the world objectives of protection for atmosphere.
The emissions of hovering particles will be supposed to have decreased itself in such degree so that are avoided the high levels of pollution of environment of air.

The territorial surface of urban regions are used for the movement, maintenance and storage of vehicles, included the vehicles for urban transport, in such a way that are answered the objectives for the environmental protection of ecosystems.

The noise that is caused by the transports, will be supposed to exceed the permissible limits and to cause harmful effect or problems in health.

The OCDE planning for the Environmental Sustainable Transports (EST), is focused in that will be moved the countries in order to they acquire figurative systems, which will be environmentally viable. However, at the duration of third phase of the EST planning was given attention in the social and in the economic affair for the benefit of preliminary assessment of wider consequences of EST. The point of report of each case, was the script without and with application of EST on 2015 in combination the conditions 1990.

Thus, it was found that the external cost for 2015 without her application of EST are increased at 30%, while with her application they are decreased at 39%. From the other, with the application of EST, the life could become healthier, sure and friendlier to the aged and to the children.

In general, the consequences of EST will be positive. So the economies will remain robust, the social costs will be lower and will exist social advantages.

One and

The technological progress cannot contribute more than 40% in the changes that are necessary in the transport sector, in order to turn them to the Environmental Sustainable Transports, OCDE published a list of directives that will be applied by the States - Members for the achievement of EST, according to their socio-economic needs. Theses directives propose the growth of desirable future of transports that will fill the specifications for viability of environment, health, economy and society, as well as the mapping out of policies that they will reduce in the viability of transports.

4. European Union and Environmental Transport Policy

Therefore, as transport activity continuously is increased (particularly in the road transports) the authors of policies of EU try to organize rationally the transport activity and develop policies “sustainable mobility”. Thus the European Committee published a strategy of viability in the sector of transports in the White Paper, concerning transports of 2001. This strategy is focused mainly on the balance of various transport means and on the harmonization of legislation between concrete sectors, but also on the improvement of transport safety.

As stressed the Commission, in November 2000, in the Green Paper, the energy consumption of transports was responsible in 1998 for the 28% of CO2 emissions, the gas that contributes mainly in the phenomenon of greenhouse. According to last estimates, if are not undertaken initiatives so that is inverted the augmentative tendency of circulation, the emissions CO2 due to transports they are expected to increase itself at 50% roughly between years 1990 and 2010 and reach them 1.139
billions tones, against 739 millions tones in 1990. Here also are incriminated mainly the road transports as they alone represent, the 84% of emissions CO2 that is attributed in the transports. Besides in the indirect damaging consequences for the health, the transport activity is responsible for the serious wounds and deaths from the road accidents. In the EU, roughly 42,000 persons are killed in the streets each year. The direct costs of road accidents are calculated roughly in the 45 billions of € annually. If they were taken into consideration and the indirect costs the figure would reach roughly 160 billions € (www.euractiv.com).

Similarly as the reduction of environmental devalorisation that is created mainly by the prevailing tendency increase of use road transport is concerned, the EU promotes alternative ways of transport. It has placed as time limit the year 2010 in order to it restores the balance between the road and other ways of transports in the level of the year 1998. For the achievement of these objectives, they have been proposed a series of assures. In the priorities are included the promotion of Shipping of Small Distances and the Combined Transports. Thus, it is expected to achieve better unification of ways of transport via technical harmonisation and interoperability between the systems, particular for the containers. The new Community program of support “Marco Polo”, aims in innovative initiative, and mainly to the promotion of marine avenues. The marine avenues are designed to function as a substitute for the road axes, either for the reason to avoid congested road arteries, or for the reason to offer access to the countries that are separated with sea from remainder Europe. Moreover, a European system of management of marine movement is forecasted it is placed in application and are imported stricter rules on the marine safety. Finally with regard to the navigable transports, it is necessary to strength their place by the creation of river ramifications and by the installation of equipment transshipment so that to be possible the unhindered passage of boats during all the year. The objective to achieve a more completed harmonisation of technical specifications of boats, certificates of control and social terms for the payments will give also impulse in the particular sector.

5. SSS and The Eastern Mediterranean Region

It is expected that the unified market and the removal of still existing obstacles in trade, will give impulse in the intra-community trade, where efficient transport connections will play an important role. In the frame of free choice of transport means, the basic emphasis on promoting Short Sea Shipping (S.S.S.) is based on the provision of sustainable and safe alternative solutions for the goods and transport units that can be transported by different modes of transport. This is particularly important as S.S.S contributes to the alleviation of the pressure and congestion of the European transport network and especially the road network. Maritime transport constitutes an important transport sector that connects countries and regions, thus strengthening cohesion. It contributes also in invigorating regional harbors. The fact that small size boats have a wider range of harbors to choose from, due to the infrastructure offered, creates new conditions of competition, not only between ports but also between the regions, which can today be select for the development of terminal and transshipment stations. This of course in a theoretical framework, which however can provide a basis for a reformation of harbor infrastructures aiming at attracting cargo loads through an improved operational system of Short Sea Shipping.
Moreover, high quality services, the speed and efficiency in the transport of goods and merchandises, constitute important elements that increase the competitiveness of EU companies. This allows them to compete not only within Europe but also in a global level. Finally, the entry of Eastern European countries of Europe in the EU is expected to create new opportunities, which of course depend on the activities of reformation and economic growth of these countries.

As a matter of fact, the economy of South-eastern European countries could be said to lie in obvious distance from the corresponding economies of other European States. Despite the important improvements and the high rates of growth that appear during the last years, this distance will continue (even though decreased) to exist for many years to come. It is not irrelevant that, mainly because of low working cost, investors show preference in these countries thus providing them with an important advantage. Similarly the development of land infrastructure appears to be lagging behind (despite any help from the EU) mainly because of limited capital for undertaking of such scale, but also for the time that is required for the completion. The result is that traditional cost effective means transport will receive an even more important place in the transport market. The existence of many sea as well as river ports encourages the growth of Short Sea Shipping as an alternative reasonable solution to the always increasing size of commodity flows.

This fact in turn leads us to the conclusion that these countries will (as far as external transport is concerned) show essential preference to more economic means of transport, with Short Sea Shipping playing a leading role.

For all these reasons, it appears that the Short Sea Shipping might be developed more and more during the next years, especially in the Eastern Mediterranean region. The desirability of this solution is more evident as it would at the same time strengthen the cohesion of the Union and also the stability in the wider area, because it will facilitate trade between countries which up to now (due to distance and natural obstacles) had little contact (as is the case for the Mediterranean and the Black Sea states). It can also lead to invigoration and modernisation of harbours located in remote regions, while the improvement of services of S.S.S. (eg increase of speed of transport of commodities, reduction of cost etc.) increases the competitiveness of enterprises of the EU improving their place in the European and global markets.

With regard to the objectives of the E.U. for sustainable transport of goods and minimization of transport externalities, there should be a special focus on the S.S.S. in the Southeastern European edge. The existing congested road networks on one hand and the lack of efficient infrastructure in many countries on the other enhance the role of sea transport in this area. This is due to the fact that sea transport is the most economic means of transport with no added demand for infrastructure since it possesses natural navigable corridors. The incorporation of sea transport and more specifically S.S.S. in the intermodal transport chain is also a perspective seriously observed by the E.U.

Another aspect is the connection of sea transport with inland navigation in the Central and also Eastern Europe and through the Canal. Our region offers the possibility of creating a new navigable network connecting the Mediterranean Sea with Danube. The importance for the Balkan countries of such an undertaking can be appreciated through several arguments such as:

1. access to the navigable network of Europe
2. access to new, fast developed markets of the Central and East Europe
3. development of a new land transport system and entrance/exit of these countries to the Mediterranean Sea.
4. further development of the competitiveness of the means of transport resulting to the reduction of the final price of our products in the European markets
5. development of the sea and river ports

Finally it should be mentioned that S.S.S. should not be considered as a microcosm of the traditional open sea transport. Short Sea Shipping has unique operational needs since it refers to the transport of goods for small distances and with small vessels. S.S.S. could be easily considered to be a viable alternative to road transport and should be promoted accordingly as the most economic means in terms of private and social cost of transport.

References

- Comparison of Documentation in Short Sea Shipping and Road Transport (‘CODISSSART’), November 1998, Maritime Research Centre, Southampton Institute, the United Kingdom
- COM (1999) 317 final
- COM (97) 681 final, 10.12.1997
- COM (97) 243 final, 29.05.1997
- http://www.europa.eu.int
- http://www.shortsea.org
- http://www.shortsea.info