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$REPORT^*$
"Development of the Sea Transport in the Black Sea Region: problems and prospects"*
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#### I. INTRODUCTION

- 1. Development of the sea transport in the BSEC area is of utmost importance due to its geographical landscape comprising huge maritime territories with Black-Azov, Caspian, Mediterranean, Aegean, Adriatic and Marmara Sea basins. Maritime transport links have always been playing particular role in the economic life of the region, as well as contributing to the social cohesion of the region. Ongoing development of the transport infrastructure in the Black Sea region implies a number of the factors strategically important for the future role of the region being as the natural transport corridor between Asia and Europe.
- 2. Upon the proposal of the Turkish delegation the PABSEC Economic, Commercial, Technological and Environmental Affairs Committee decided to consider the issue of "Development of the sea transport in the Black Sea region: problems and prospects".
- 3. Issue of the sea transport and its infrastructure has been considered by the PABSEC before. In 1996 the Assembly adopted Recommendation 13/1996 on "Cooperation in transportation among the BSEC member countries" calling to "stimulate the interest of the private sector for the implementation of specific projects, especially in the field of maritime transportation". In Recommendation 29/1998 on "Transport technology and integration in Europe" the Assembly calls "to speed up the establishment of a modern transportation network between the BSEC member states in accordance with the principles of inter-modality". In Recommendation 84/2005 on "Development of transport infrastructure in the Black Sea region" PABSEC calls the member states to "support coordination activities on the security of all modes of transport in the context of the national security in the region, including safe transportation of energy resources".
- 4. Rapporteur is thankful to the national delegations of Azerbaijan, Bulgaria, Greece, Romania, Russia and Turkey for their contributions to Report and expresses special gratitude to the Black and Azov Seas Ports Association (BASPA) for its assistance in preparing draft report and providing with proper and comprehensive information. Additionally, Report is based on the proceedings of the various conferences on the issue, analytical reports and studies, official documents of BSEC and related bodies, as well as the documents of other international organizations.

# II. SEA TRANSPORT IN THE BLACK SEA REGION: TRENDS AND DEVELOPMENTS

5. Rapid economic development in the most of countries in the world, primarily in the countries of the Asian-Pacific region, has encouraged the accelerated growth of trade and trade links between the continents. This tendency resulted in the immensely dynamical development of sea transportation, including the development of comparatively new oceanic transport ways. Within these processes the Black Sea region has occupied weightier place in the world trade and serious changes took place in the system of sea transport of the region. In practice, the Black Sea region performs a function of initial and terminate point for distant oceanic transportation connecting countries of the region with developed countries of other continents.

- 6. Before present financial and economic crisis beginning, the turnover of goods between Europe and Asia was increasing annually on 25-30 %. Economy reorganization of Black Sea countries and development of foreign trade gave a great push for organization and development of regional Black Sea transport system. After some period of slackness in 1990's last century, regional traffics began its development very fast, new priorities were elaborated. So, the total cargo turnover of ports of Bulgaria, Georgia, Russia, Romania and Ukraine for 7 years (2007 in comparison with 2000) was increased more than twice, including in Russian ports for 94%, Ukrainian for 76%, Romanian ports for 74 %.
- 7. Along with that, hither trans-Black inter-modal lines are gaining more importance in the region. In this process sea ports play essential role connecting inland transport lines with maritime ones. To date, in the globalized world a task for the ports of the Black Sea region lies not only in their role of transport gates for the routes connecting the countries of the region, but also in serving commodity turnover between the Asian-Pacific region and Europe. Consequently cargoes movement and delivery at the background of increasing volumes of trade flows becomes a priority for all countries of the region. A complex of issues and requirements comes out to the foreground concerning maritime infrastructure, fleet renewal, quality of the services in the seaport, market access to the port services, adjustment to the international environmental standards and improvement of regulations and legislation related to the sea ports.
- 8. At the same time financial and economic crisis already affects and will continue to influence on trade volume and accordingly on cargo traffic volume. Nevertheless, in view of the fact that crisis is a temporary phenomenon, it is very important to indentify the common trends, make a qualified forecast, develop and put into practice arrangements, which are obligatory for continuing successful integration of transport system in the Black Sea region and first of all, sea transport into global world transport network, as well as to take necessary measures to provide interests of the region's countries assisting in ultimate and quickest development of trans-Black Sea and intercontinental traffics.
- 9. For the majority of the BSEC countries, including land-locked countries, the maritime transport provides an access to the Mediterranean Sea and to the ocean transport shipping routes, i.e. intercontinental trade links.
- 10. It should be stressed that Danube river play strategic role in the Black Sea region connecting the region with North Sea and the rest of Europe. Danube serve as the central artery in some BSEC member states Bulgaria, Moldova, Romania, Serbia and Ukraine, that is also determined by the development of the port capabilities in the river and existing links with the Black Sea, which were lost as a result of conflicts in the Balkan states.
- 11. Development of the transport system and sea transport itself also depends on demands of solving the regional environmental issues. Together with industrial development of the countries in the region, urban growth and extension of recreation areas, consideration of ecological aspects has become a core issue along with extensive actions on transportation development and organization of the trans-Black sea transport network.
- 12. Environmental situation in the Black Sea is an issue of priority for entire BSEC region since it has trans-national and even trans-continental character of its water supply, taking into account collecting area from all rivers, including the flows from the Azov Sea through the Kerch Strait coming into it, and with all existing pollution sources in the water collecting area. Key solution mechanism in this direction could be the Bucharest Convention on the Black Sea projection from pollution adopted in 1992.

# III. SEA PORTS OF THE BLACK SEA REGION: DEVELOPMENT AND PROSPECTS.

- 13. Sea ports of the Black Sea region perform a role of key points connecting inland transport corridors with sea lines. Practically, all ports of the Black Sea region participate in the maintenance of inter-modal transportations. In this connection a vital role belongs to the concept of motorways of the sea, which was successfully elaborated by the United Nations Economic Commission for Europe and European Union.
- 14. Generally, during the last two decades sea ports of the Black Sea region not only managed with handling of growing cargo traffics but also provided a serious enhancement of their facilities, construction of new ones, reconstruction of existing facilities, and, in a certain measure, upgrading of technologies and technique of cargo handling operations.
- 15. In the context of port facilities development and relative demand for transportation, the main problem of ports in the Black sea region is the necessity of increasing cargo throughput of container terminals, complexes for handling Ro-Ro vessels, creation of high-efficiency terminals for bulk cargoes, providing environmental protection and health care for people at required level. This problem in most cases is under port and terminal authorities' control, and also state bodies, responsible for transport branch and first of all for marine transport. For solution of this task, as a rule, along with state funds private investments also, and long-term soft loans are attracted.
- 16. Taking into account the fact, that the large majority of the ports in the region desperately needed in investments for development of infrastructure and increasing of the technical level for cargo handling services, reclamation of the most dynamically developed cargo flows (first of all containers) improvement of the principles of Public Private Partnership in the ports is of extremely interest for this time. By force of the well-known circumstances, transport sectors of the most countries in the Black sea region don't have enough experience in this matter. Nonconformity of the legislation of some countries in this part is the obstruction for adoption of the best world experience and recommendations of the United Nations organization. On the other hand, future opportunities of the ports and the level of their satisfaction of the growing requirements of the regional transport network depend on the fastest and optimal solution of this matter.
- 17. Another significant factor in the ports activity is the effectiveness of the organization and operation in the ports of the governmental bodies, providing custom clearance for the cargoes and passengers crossing the border. Importance of this problem confirmed by the fact, that by this reason loaded containers are delayed in the ports for the time, 8-10 times more than in the modern American, Japan or European ports. The time of delay is often more than one month, sometimes more than two months. International trucks with cargoes stay in the port for several days, sometimes even for more than a week, instead of some hours. It means additional expenditures and losses for hundreds millions of dollars for all members involved in transportation process, and first of all, for the cargo owners, sellers and buyers of the goods.

## BLACK AND AZOV SEAS

18. More than 32 ports operate at the Black and Azov Seas, including: Bulgarian (2), Georgian (2), Romanian (2), Russian (5), Turkish (10) and Ukrainian ports (17). Their functioning is accompanied by ten Ukrainian, Romanian and Bulgarian ports involved in the handling of vessels of the river-sea type. The main inter-modality trans-Black Sea lines pass via the basic ports: Ilyichevsk, Odessa, Izmail, Nikolaev, Kherson, Mariupol, Berdyansk and

Kerch (Ukraine), Constanza (Romania), Varna and Burgas (Bulgaria), Novorossiysk and Caucasus (Russian Federation), Poti and Batumi (Georgia), Istanbul, Deringc, Zonguldak and Samsun (Turkey). Key ports, on which are based both container and ferry lines, are ports of Ilyichevsk, Odessa, Constanza, Varna, Istanbul, Deringe, Poti, Batumi. In 2007 total cargo turnover of the 25 largest ports and terminals of the ports increases by 9,2% and exceeded 392 million tons.

- 19. The biggest ports in the Black Sea are Novorossiysk (cargo turnover- 81,633 mln. t.), Constanza (61,837 mln.t.), Odessa (34,562 mln.t.), Yuzhny (21,698 mln.t.), Illichivsk (18,904 mln.t.), Mariupol (12,620 mln.t.). (See Annex I)
- 20. Foremost, it is necessary to mention extremely dynamic development of the container transportations. Taking into account a 9-10% growth of world container transportations, containers handling in the Black Sea ports in the last 7 years was growing rapidly and achieved 35-40% annually. In 2006 total container turnover of the ports (without ports of Turkey) of the Black Sea reached more than 2,2 million TEU<sup>1</sup>, and in 2007 exceeded 3,1 million TEUs. The most intensive development of container transportations is marked via the terminals of Russia (51%), Ukraine (46%) and Georgia (45%).
- 21. At present the leader in container handling is still the Romanian port of Constanza. Constanza port is both a maritime and a river port with the handling capacity of 100 million tons per year and 156 berths, of which 140 berths are operational. Daily, more than 200 river vessels are in the port for cargo loading or unloading or waiting to be operated. The connection of the port with the Danube River is made through the Danube-Black Sea channel, which represents one of the main strengths of Constanza Port. Danube is one of the most advantageous lines of transportation and efficient alternative to the European rail and road congested transport. In 2007 the Port of Constanza handled a total traffic of 57.784 million tons of cargo and more than 1 million TEU making it the 9<sup>th</sup> busiest cargo port in Europe. The port is the main container hub in the Black Sea and all direct lines between Asia and Black Sea due to the natural position of the port: deep water (up to 18.5 meters) with a direct link to the Danube.
- 22. Due to vigorous growth of container cargo traffics the lack of port capacities for containers is the main issue of the day. In this connection the port capacities are intensively enhanced. New terminals are under construction in the port of Odessa and Yuzhny, existing terminals are being reconstructed and two new facilities are being designed in the port of Ilyichevsk. Container traffics grow rapidly through the port of Poti. The terminal in Batumi is being upgraded and is operated at present. Container terminals in Novorossiysk are expanded and equipped with new facilities. Preparation for construction of two powerful terminals is carried out in Burgas and Varna; construction of new container terminal is planned in Constantza. Apart from providing of feeder transportations on trans-Black sea lines, implementation of planned projects allowed to attract the largest world container operators, served the trans-ocean lines.
- 23. Exceptionally important value for handling of export-import and transit cargo flows of Ukraine has three ports, so-called "Large Odessa" (Illichivsk, Odessa, Yuzhny). Their total cargo turnover exceeded 75 mln. tones last year. In general, when 17 Ukrainian sea ports provide handling of more than 40 % cargoes, passing through the Black Sea region, 3 ports

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<sup>&</sup>lt;sup>1</sup> Twenty-foot Equivalent Unit is an inexact unit of cargo capacity often used to describe the capacity of container ships and container terminals.

- of "Large Odessa" provide handling of half of cargo turnover of ports of Ukraine. This complex is a main gate of Ukraine, but its value also is on the issue of creation of the transport corridor Baltic the Black sea. The port of Ilyichevsk (Ukraine) today is one of the largest ports of the Black Sea region on general cargoes transshipment. In 2007 container turnover of Ilyichevsk was 532 thousands TEUs. At the territory of port the container terminal with capacity of 1.1 million TEU per year and multi-modal terminal handling railway and car ferries, and serving cargo traffics in railway cars, containers, truck train, and also motorcars and passengers successfully function. A major factor, influencing on development and activity of the port, is its key position at the cross-roads of main transport routes.
- 24. On the coast of Azov sea, perhaps, the port of Mariupol (12, 620 mln. t 9 months 2008) has a major importance, as it is a main gate of foreign trade for a highly developed industrial region of Donbass. Taking into account small depths and difficulties of navigation in the Azov sea in winter time, the port of Mariupol is in a position to provide the demands of foreign trade for Donbass, and also handling of certain Russian cargo traffics only together with the ports of Crimea, and also ports of the Odessa region, Nikolaev and Kherson as well.
- 25. Thus, one of the major ports in the Black Sea region part of Danube is port Izmail its cargo turnover about 7 million tons during the last years. The port has the opportunities for handling of the container vessels and small tonnage ferries.
- 26. Varna is the largest and comprehensive Bulgarian port handling over 8 million tons of cargoes per year. With modern equipment, excellent transport links, rail ferry service and a crossroad location, the port is a convenient bridge for the cargo flows. For 6 consecutive years, the port has reached 10% annual turnover growth, following a policy of constant investments in modernization and technological development and improvement of labor conditions. The updated general plan for the Port of Varna by 2020 was approved in 1999. Major projects for new construction, reconstruction and modernization include: a deepwater container terminal and a Ro-Ro terminal on the island under the Asparuhov bridge, a grain terminal on the north shore of Lake Varna, south of the Dry Port storage base, a liquid chemicals terminal and a cement and clinker terminal at Varna West, modernization of the passenger and Ro-Ro terminals at Varna East.
- 27. Quickly developing Black Sea ports of Turkey together with those Turkish ports which settle down at the coast of Sea of Marmara play more and more significant role in development of trade and transport communications between Europe and the countries of the Western and Central Asia. Port of Erdemir comprises of two main ports also providing pilotage and towage services in addition to port operations. There are two unloading docks with 405 and 350 meters long in different capacities suitable for ships up to 200.000 DWT; four General Cargo Docks with 295, 300, 170 and 150 meters long in different capacities suitable for ships up to 60.000 DWT, Ro-Ro and Train Ferry quays, which meet the international standards, 110 ton towage power, discharge cranes 2500/1500 ton/hour discharge capacity, shore cranes with 40 ton lifting capacities from 30 meters, machinery and equipment with various tonnages, with total 16.000.000 ton handling capacity, Port of Erdemir being the Turkey's gate through Black Sea to the world has the fastest and largest discharge facilities in Turkey especially for bulk cargoes like coal, ore, etc.
- 28. The Port of Haydarpaşa is a general cargo seaport, Ro-Ro and container terminal, situated in the same-name district of Istanbul at the southern entrance to the Bosporus and serves a hinterland which includes the country's most industrialized areas. It is the biggest container

port in the Marmara Region with an annual cargo volume exceeding six million metric tons (MT) and the third biggest port in Turkey. Total container handling capacity of the five container terminals is 1,200 vessels a year. The space for container terminal is nearly 100.000 m<sup>2</sup> with a holding capacity of 6,000 TEU. The annual handling capacity of the Port is 144,000 TEU. A container freight station of 3,600 m<sup>2</sup> is available behind the container quay. In addition to the open storage area of 313,000 m<sup>2</sup> and covered area of 21,000 m<sup>2</sup>, there exists a container land terminal outside the port in Göztepe for stacking the empty containers. It covers an area of 55,000 m<sup>2</sup> with a holding capacity of 52,800 TEU. Container loading and unloading, and custom clearance are made in the terminal at the port. The newly built Ro-Ro terminal can accommodate 360 vessels per year, and handle 410,000 tons of cargo, 65,000 trucks and 60,000 cars a year. There are daily Ro-Ro services between the ports Haydarpaşa and Trieste, Italy and Constanza, Romania. The rail ferry terminal and ferries are operated between the two sides of Bosphorus (Sirkeci district and Haydarpasha). Each of the three rail ferries with 480 tons capacity can transfer 14 rail carriages. Haydarpaşa will be left inactive after the completion of the Marmaray Project and removal of the port to the Port of Ambarlı, the second biggest port of Istanbul.

- 29. Significant volumes of cargo handling works from sea on land types of transport is carried out by the Russian ports of the Black Sea coast and, first of all, two largest of them Novorossiysk and Tuapse. The volume of transshipment operations carried out by them brings them in number of the major ports in the Black Sea region. The commercial port of Novorossiysk, with the market capitalization of \$1,110,000,000, serves Russian sea trade with regions of Asia, Middle East, Africa, Mediterranean, and South America. It is the busiest oil port in the Black Sea and the terminus of the pipeline from the Tengiz oil field in Kazakhstan. Today Port of Novorossiysk is the largest commercial port in south Russia containing ample storage and cargo-handling space and excellent port support services. Priority is given to handling of containers and shipment of timber goods. The port's strategic development plan will increase port capacity to handle as many as 350 thousand TEUs of containerized cargo and 3 million cubic meters of timber per year. Tuapse is Russia's second largest Black Sea port. Like Novorossiysk, it is a vital route for the export of crude oil. Traditional traffic pattern in Tuapse also includes metals, fertilizers, coal, building materials, and foodstuffs.
- 30. Georgian port of Batumi is the transport link connecting the sea, river, railway, automobile, air and pipeline types of transportation. The port has the capacity for 80,000-tonne tankers to take oil materials originating from Azerbaijan and is shipped all over the world. Smaller oil exports also come from Kazakhstan and Turkmenistan. Additionally, port is one of the key points in exportation of agricultural products. Since 1995 the freight conversion of the port has constantly risen, with an approximate 8 million tons in the beginning of 2000ies. To perform its purpose Batumi Sea Port has a territory and water area with the appropriate special equipments and facilities, major of which are berth securing devices, berths, loading mechanisms, warehouses, auxiliary service vessels, railway and automobile ways, vehicles, repair shops, systems of water pipe, communication and the sea station. Nearest plans include reconstruction of railway ferry terminal, which will give compatibility to the wide and narrow (European type) gauges. Batumi Sea Port's turnover essentially has increased for last ten years. This tendency is continuing and from 80 to 90% of complete turnover are crude oil and oil products, as well as about 70% of total turnover of dry cargo is general cargo.

31. Sea Port of Poti with its geographical location represents a crossroad of the Caucasian corridor. Nowadays the port is equipped with modern cargo handling facilities and in line with the European standards. The port has open and closed warehouses, supportive constructions, 8 cargo handling complex located at 15 berths of the northern port and inner basin, passenger station and berths for fishing fleet. The Poti-Ilyichevsk-Varna rail ferry complex continues to be an important project, which connects Poti with Ukrainian and Bulgarian ports ensuring high level of turnover.

#### CASPIAN SEA

- 32. Historically being the important part of commercial route between Far Eastern region and Europe, which is known as the Silk Way, the Caspian Sea has become now a central focal point for oil and natural energy resources transported to the world markets. Increasing export of the Caspian energy resources in Western and Northern directions, along with construction of new pipelines, has initiated a steady development of largest sea ports. In perspective, the Caspian Sea is capable to play a strategic role both in development of the East-West and North-South transport corridors. The chief Caspian ports are Baku, major oil center, and port of Astrakhan in Russia.
- 33. Baku International Sea Trade Port is the main marine gateway of Azerbaijan and important transit point in Europe-Asia trade. With the increase in trans-Caspian oil trade volumes and enormous import to Azerbaijan various equipment for offshore oil activities the port has further strengthened its importance. Services rendered to the users of the port include dry cargo and liquid bulk handling, general and project cargoes, container handler, warehousing and storage. The Baku port is comprised of main cargo terminal, oil terminal (Dubendy), ferry terminal and passenger terminal. The port's throughput capacity has been constantly growing and reaches up to 15 million tons of liquid bulk and up to 10 million tons of dry cargoes. Due to its modern facilities and year-round accessibility the port maintains its competitiveness and is widely used by international traders. Baku port has ferry lines with Turkmenbashi (Turkmenistan) and Aktau (Kazakhstan).
- 34. Port of Astrakhan due to its geographic location is the basic Russian transport hub of the North-South corridor that in comparison with the traditional sea route through Mediterranean Sea and Suez Canal enables to shorten a length of goods transportation from the South-East Asian to Western Europe. Basic activity of the port is the transshipment of general cargoes to Iran and Asian countries. Since activation of the agreement on "North-East" international transport corridor Russian government has given an impetus to the modernization of the Astrakhan port that increased port facilities and improved logistic services.
- 35. Another fast developing Russian port in the Caspian Sea is Makhachkala. Located strategically on the western Caspian coast, Makhachkala is the capital of Russia's Dagestan province. It plays a vital role in connecting Russia with the Central Asian republics. A regular ferry service, which is capable of handling heavy cargo, connects Makhachkala with Turkmenistan's Caspian port of Turkmenbashi. From here, a rail line passing through a large segment of the Turkmenistan's Karakum desert extends further east towards Dushanbe, the Tajik capital. A ferry service from Makhachkala also makes regular runs to Kazakhstan's Caspian port and oil terminal of Aktau. Moreover, Makhachkala port has emerged as an important terminal for transferring Caspian oil to Novorossiysk straddling the Black sea.

#### AEGEAN SEA

- 36. Port activities in the Aegean Sea are a domination of two regional sea powers Greece and Turkey. Traditionally the Aegean Sea was at the forefront of maritime transport as the key touristic and sea sport destination. Logically, both Greece and Turkey have been giving special emphasis to the development of cruise routes, modernization of sea passenger transport and improvement of passenger services in the ports. During the last years a role of the Aegean Sea has increased, firstly on the reason of realization of energy projects and transportation of energy products through this route.
- 37. Port of Alexandropouli has gained increasingly strategic importance after the agreement on Burgas Alexandropouli oil pipeline. Realization of this project will make the port of Alexandropouli the important hub of oil transportation with improved facilities. According to the project, pipeline will be served by special storage facilities at the port of Alexandroupoli with a capacity of 650,000 metric tons, as well as special infrastructure for floating platforms aimed at loading tankers, of a total capacity of 300,000 tons displacement.
- 38. Port of Izmir is located at the important point between West Europe and North Africa, having a wide agricultural and industrial hinterland. It plays a great role not only as an industry and trade centre but also a main exporting port of Turkey. Port of Izmir is still the biggest port of Turkey in terms of quantities of cargoes handled. There are railway, highway and airway connections (27 km) to the port. Port has 559.661 TEU and 9.652.714 ton cargo handling capacity. Also the port has the capacity to accommodate 3.640 ships per year with its 2.950 meter long berth / pier length and 13 m draft.
- 39. Piraeus is one of the European largest passenger port handling 20 million passengers each year and makes it the third largest worldwide, in terms of passenger transportation. The facilities at the port have been recently modernized and the quality of the amenities improved significantly. Piraeus is a principal nautical and financial hub, with boats linking Athens with the major Greek islands and numerous other countries in the Adriatic. Piraeus is situated southwest of Athens, about 11 km and operates ferry crossings to Crete Island, the eastern part of Greece and a large part of the northern and eastern Aegean. Various companies operate from this port providing the fast services from the Port of Piraeus, including sailings. Piraeus is at the top of all eastern Mediterranean ports in cargo traffic.
- 40. Thessaloniki is a major port city and an industrial and commercial center of the region. The port of Thessaloniki functions as the gateway to the Balkan hinterland being also a major transportation hub for the whole of southeastern Europe. It serves the growing needs of those countries for the import and export of raw material, consumer products and capital equipment. The port is a vital element of the country's economy while it also plays a substantial role in the effort of Northern Greece and its centre city to be established as the economic centre of the Eastern Mediterranean. The port enjoys a privileged position being located at the crossroad of land transportation networks. Thessaloniki's port handles over 16 million tons of cargo per year (out of which 7 million dry cargo and 9 million liquid fuel cargo), 370,000 TEUs containers, 3,000 ships and 220,000 passengers.

#### MEDITERRANEAN, IONIAN AND ADRIATIC SEAS

41. Sea transport of the East Mediterranean as a part of the Black Sea region is an essential and integral factor of economic life of the region in terms of trade cooperation with EU and North African region. Share of the Mediterranean in world container traffic is about 5-7% and increasing at rate of 8% a year. Undoubtedly, primarily it concerns transit of

- energy and realization of relevant projects. As the routes of newly constructed energy pipelines pass through the Mediterranean Sea with subsequent delivery of energy carriers to the European markets, ports of this area included to the pipelines map are undergoing infrastructural changes. Passenger's traffic is steadily growing especially along with development of touristic infrastructure in the Mediterranean resorts of Greece and Turkey.
- 42. Important gateway ports of the East Mediterranean are ports of Ambarli, Iskenderun, Mersin, Ceyhan in Turkey and Patras in Greece. Port of Mersin is the largest Mediterranean port of Turkey with a total port area of 786,000 m² and capacity of 3,800 ships per year. Adjacent to the port is Mersin Free Zone established in 1986, the first free zone in Turkey that facilitates a process of attraction of foreign investors. It is the main port for the Eastern Mediterranean Region's industry and agriculture and a gateway for both the Turkish neighboring cities Gaziantep, Adana and for Iraq and Iran. The port's rail link and its easy access to the international highway, as well as its modern infrastructure and equipment, efficient cargo handling, vast storage areas and its proximity to the free trade zone make it an ideal transit port for trade to the Middle East.
- 43. As the western end of the Pan-European Transport Corridor VIII, the Albanian port of Durres has an essential role to play in the economic development of the country and the Western Balkan region. Durres is considered as one of the important ports in the Adriatic Sea, as it could play significant transit role in passengers and goods transportation to other European countries. According to official data, the passenger volume of port was 704,000 during 2005 being increased more than 21,000 passengers year-on-year. There are five ports in Albania open to international traffic: Durres, Vlora, Saranda, Shengjin and Himara -- with a total average of about 5 million tons of cargo annually. Of these, Durres handles roughly 90% of the Albanian international maritime trade tonnage, and 65% of the country's total export and import trade. The government is implementing a master plan for the development of the port aiming to improve its capacity and efficiency.

## STRAITS OF BOSPOR AND DARDANELLE

- 44. The Straits of Bosporus and Dardanelle are considered as one of the most strategic waterways of the region and Eurasian continent. The total distance to be covered through the Straits is about 200 miles, which for an average vessel takes about 16 hours to navigate. The dangers of navigation for a large tanker around these zones are very well known by the whole maritime community. Even medium size ships encounter difficulties while navigating in the dangerous sections of the Strait of Istanbul. The Strait of Bosporus is approximately 31 km long with a width varying from 700 meters to 1500 meters and is characterized by several sharp turns that forces the ships to alter course in this Strait at least 12 times up to 80 degrees.
- 45. The Strait of Bosporus runs right across the city of Istanbul with more than 15 million inhabitants and the shorelines of Istanbul are densely populated. The vessels carrying dangerous cargo regularly approach as close as 50 meters to these inhabited areas. The Strait of Bosporus represents also one of the rarest marine biological corridors of the world being a genetic bridge for marine life between the Black Sea and the Mediterranean.
- 46. The length of the Strait of Dardanelle is about 70 km., with a general width ranging from 1300 meters to 2000 meters. It has similar geographic features as the Strait of Bosporus.
- 47. Since the signing of the Montreux Convention, establishing the regime of passage through the Straits in 1936, the number of vessels passing through the Straits has increased 10 times while their total tonnage has increased more than 25 times. Indeed, while the number

- of ships passing through the Straits was 4500 annually in 1938, today this figure is more than 50.000.
- 48. In recent years, not only the frequency of vessel traffic has increased but also the qualitative characteristics, including the size of vessels and the nature of cargoes, have drastically changed. The ratio of oil, oil products and other dangerous and hazardous materials transported by large tankers has been rapidly increasing. Indeed, the number of oil tankers and other dangerous cargo vessels passing through the Strait of Bosporus rose by % 90 in the last years alone from 4248 in 1996 to 10.153 in 2006. Similarly, the amount of hazardous cargo increased from 60.1 million tons in 1996 to 143.4 million tons in 2006. These figures for the Strait of Dardanelle are similar.
- 49. The above figures do not include the daily intense maritime traffic in Istanbul (about 2500 shuttle boats), inter-city ferries, leisure crafts and fishing boats. More than 2.5 million people are involved every day in Istanbul alone in the maritime traffic for transport and other purposes. (See Annex II)
- 50. The increasing maritime traffic in the Straits, especially the sharp rise after 1990's in the number of oil tankers and the amount of oil they carry bring with them the growing risk and danger of a large-scale accident in the Straits causing huge environmental damage and destruction. The past examples show that this risk and danger may turn into a catastrophic situation any time unless the necessary measures are taken to ensure safety of navigation in the Straits.
- 51. The consequent marine pollution, have already severely affected the environment. There is a significant decrease in the number and the variety of the surface and subsurface fish in the Straits, whereas until early 1970's the Straits were known as a rich and productive marine area. As it was mentioned above, the Straits also used to play an important role as a biological corridor between the Mediterranean and the Black Sea, and acted as an acclimatization zone for the Mediterranean species. However, due to the pollution mainly stemming from maritime traffic, this sensitive eco-system is now facing the threat of destabilization. Not only maritime accidents but also garbage dumping, used oil dumping, ballast water and waste water discharging negatively contribute to a great extent to marine pollution.
- 52. Having faced with this reality, Turkey had to take some safety measures firstly in the Straits in 1994. The measures, which were contained in the Straits Regulations, were revised in 1998 taking into account 4 years of practice and experience.
- 53. On the other hand, traffic separation schemes (TSS) were introduced in 1994 in the Straits in accordance with the provisions of the "International Regulations for Prevention of Collision at Sea" (COLREG). The TSS was approved by the International Maritime Organization (IMO) General Assembly in November 1995. The Straits Regulations and the TSS aim at enhancing safety of navigation in the Straits and are in conformity with the relevant rules of international law and practice. Indeed, the Maritime Safety Committee of the IMO concluded at its 71st session, which was held in London on 19-28 May 1999, which the safety measures and the associated IMO Rules and Recommendations "have proven to be effective and successful". The drastic decline in the number of accidents and collisions substantiate this conclusion. Along with that, the Turkish Government has installed a modern vessel traffic services (VTS) system in the Straits. The System has been operational since December 2003 aimed at increasing the level of safety of passage.
- 54. Despite the safety measures that have been taken, the Straits of Bosporus and Dardanelle are still threatened by the ever growing number of oil tankers and other dangerous cargo

vessels. A glance at the figures of the last seven years given below is enough to understand the level and scope of the risk and danger.

#### **BSEC ACTIVITIES**

- 55. Economic Agenda of the Organization of the Black Sea Economic Cooperation directly confirms that strengthening of the regional cooperation in the field of transport and the establishment of infrastructural networks aimed at facilitating intra-Black Sea region trade flows are strongly recommended in order to create an efficient regional transport system. According to the Economic Agenda the main directions for cooperation of the Member States in the field of transportation are: elaboration of concrete measures for the implementation of priority projects aimed at the development of the international transport infrastructure in the BSEC region; creation of favorable investment conditions which would facilitate the participation of private sector in the construction and operation of modern transport infrastructure; coordination of measures for the operation and interaction of different modes of transportation.
- 56. The Transport Plan of Action of the BSEC determines the main directions of the transport cooperation between the BSEC Member States in order to create a highly efficient regional transport system, which combines the national transport programs with the development plans of the Pan-European transport corridors. With regard to maritime transport the Action Plan reflects that the most important steps in this field are: the endowment with equipment VTMS (Vessel Traffic Management System) of all the ports of the BSEC Member States relevant for the BSEC region in line with international standards; the creation/modernization of the centers for the coordination of search and rescue activities on sea; the development of the ferry links between the ports of the BSEC Member States relevant for the BSEC region; development of inter-modality, in order to create the necessary framework and conditions for an efficient, modal integrated and environmentally friendly use of the Pan European transport system, through an improved cooperation between the parties; development of means and services for the maritime transport in the BSEC region.
- 57. Regarding activities of the BSEC in the field of transport it is focused on supporting the extension of the Trans-European Networks and the development of Euro-Asian transport links. In this framework, BSEC policy on the development of maritime infrastructure and links was marked with signing the Memorandum of Understanding on the Development of the Motorways of the Sea (MoS) in the BSEC Region in Belgrade in 2007. Work on the implementation of the MoU is coordinated by the Ad Hoc Working Group. Within the meetings of the Ad Hoc Working Group (Greece is a country-coordinator) following proposals aimed at facilitating the implementation of MoU were forwarded: establishment of the Joint Permanent Technical Secretariat on the development of the MoS; elaboration of a Master Plan for the MOS in the BSEC region; establishment of the "Motorways of the Black Sea Support Fund" proposed by the Black Sea Trade and Development Bank.
- 58. Declarations and Statements adopted at the ministerial level also emphasize the role of the maritime transport in the Black Sea region. Thus, the Joint Declaration on Cooperation in the Sphere of Transport in the BSEC region adopted on 27 September 2006 in Sochi calls the member states to "speed up the work on re-establishment and development of the regular ferry passenger and passenger-cargo services between the Black Sea ports, as well as to pay particular attention to sea port infrastructure points development and

harmonization of port formalities in the Black Sea region". In accordance with the provision of the Sochi declaration the Initiative on creation of the "Black Sea Railway and Ferry line Ring Corridor", providing for the restoration and development of the regular cargo and passenger ferry lines between the Black Sea Ports, was forwarded later. Promotion of the development of sea ports in the region with a view to providing additional transport options to the existing and future trade flows between the BSEC Member States, Europe and Asia is reflected in the Joint Declaration on Cooperation in the Sphere of Transport in the BSEC region adopted on 10 April 2008 in Odessa. Moreover, the Odessa declaration stipulates such aspect of cooperation, as taking appropriate measures for the removal of both physical and non-physical barriers in the BSEC region at key transport nodes and transshipment points including maritime ports.

59. Along with work done by the BSEC in the field of development of the sea transport a number of perspective proposals deserve attention. These are: the proposal on a multilateral program for the development of maritime passenger transport in the Black Sea and Mediterranean basins involving high-speed vessels (hydroplane and air cushion vessels) and proposal on launching cooperation within BSEC to ensure safety of navigation, including the creation of the Automatic Identification System (AIS) and exchange of relevant information, especially in the Black Sea straight zones (these proposals were forwarded by the Ministry of Transport of the Russian Federation).

# V. APPLICATION OF THE INTERNATIONAL NORMS IN THE SEA TRANSPORT OF THE BLACK SEA REGION. POLICY OF THE EUROPEAN UNION

- 60. Development of the maritime infrastructure of the BSEC region is an aspect that attracts a particular attention of international actors, both in terms of the region's potential on strengthening of maritime transportation systems between the Caspian, Black Sea, the Aegean and the Mediterranean due to its strategic location and in terms of the increasing role of the region in the world trade system. All the BSEC member states are keen to modernize existing infrastructure and develop new projects in this field and presently apart from the BSEC framework they are being involved in various regional projects. Taking into consideration a fact that the European Union has developed a comprehensive maritime policy consistent with the aims of the 2002 World Summit on Sustainable Development, the provisions of the UN Convention on the Law of the Sea and the standards of the International Maritime Organization, Union's experience and application of its norms are considered as the most relevant to the Black Sea region.
- 61. For the EU maritime transport is a catalyst of economic development and prosperity enabling the trade exchanges and the contacts between all the European nations. It ensures the security of supply of energy, food and commodities and provides the main vehicle for the European imports and exports to the rest of the world. Today, 90% of the EU external freight trade is seaborne. Short sea shipping represents 40% of the intra-EU exchanges in terms of ton-kilometers. The quality of life on islands and in peripheral maritime regions is extremely dependant of good maritime transport services. Each year, more than 400 million passengers embark and disembark in European ports, maritime industries are an important source of employment and income for the European economy.
- 62. The European Commission's Transport Policy aims at the harmonious performance of the European maritime transport system as a whole. Over the years, the Commission has built a regulatory framework encouraging the efficiency of ports and maritime transport

services in benefit of all other economic sectors and of the final consumer. The Commission supports actively the efforts of the EU Member States to promote a European merchant fleet offering quality shipping services in Europe and all over the world. The Commission is also promoting short sea connections between all the maritime regions of the European continent, as this transport mode represents an opportunity to solve road congestion problems while reducing significantly the environmental impact of the overall transport chain.

- 63. As a result of the Commission's effective decisive action Europe is protected today with very strict safety rules preventing sub-standard shipping and reducing the risk of environmental catastrophes, also working actively against piracy and terrorism threats. Other important field of activity of the Commission concerns the social dimension, looking after working conditions, health and safety issues and professional qualifications of seafarers. Finally, the Commission works for the protection of citizens as users of maritime transport services, ensuring safe and secure conditions, looking after their passengers rights and examining the adequacy of the public service maritime transport connections proposed by the Member States.
- 64. Enhanced cooperation between the BSEC and European Union that took already a form of regulatory framework, including a factor of membership of three BSEC member states in the EU and advanced partnership of all BSEC member states with EU on special bilateral basis, makes the Union's maritime policy operational for the Black Sea region. Transport is fixed as one of the priority fields in the EU regional dimension in the wider Black Sea area by enhancing coordination between the regional actors on promotion of the Motorways of the Sea concept, developing waterways and maritime transport on the routes connecting Asia and Europe through the Black Sea, Caspian Sea and the Mediterranean. Activities of the EU towards the BSEC region on maritime transport could be presented in following topical areas:

#### a) Safety and environment

Black Sea region is a major transit route for hydrocarbon resources from Russia and Caspian basin countries to the European Union being also a significant energy market itself. Consequently, safety and security of oil transportation (particular relevant to the supply of current and future oil pipelines is an issue that needs the coordinated action and application of the EU and international norms. Basic component here is the Trans-European Network (TEN) for Hydrocarbons covering all elements of infrastructure pipelines, terminals, oil, LNG and LPG (liquid natural-petroleum gas) tankers, etc. Besides, special emphasis is given to the eliminating substandard shipping, increasing protection of crews and passengers and reducing the risk of environmental pollution. EU action in the field of maritime safety and protection of the environment generates significant added value to the international framework (IMO instruments). The transposition of IMO rules into the EU legal system ensures their enforcement across the entire European Union. In addition, the EU plays an important role in improving international standards by initiating and contributing directly to their adoption at international level. The key EU level institution in this area is the European Maritime Safety Agency.

#### b) Security

The overall objective of the EU's maritime security policy is to protect the citizens and economies from the consequences of terrorist attacks. The Regulation on maritime and port facility security transposes the special measures for enhancing maritime security of

the International Convention for the Safety of Life at Sea (SOLAS) and the International Ship and Port Facility Security Code (ISPS) into EU-legislation, making in addition certain non obligatory parts mandatory and extending them to intra-EU traffic. The Directive on Port Security extends security measures to the whole port area whereas the scope of the Regulation is limited to the ship/port facility interface.

#### c) Human resources

This subject is of special importance in order to ensure a relative uniformity of standards, skills and competences in sea transport related professions. The activities of the EC concerning maritime education and training with an aim to providing multiple employment opportunities, including the "maritime clusters" concept, are highly relevant for most BSEC member states.

## d) Legislative framework

The EU enlargement into the Black Sea region calls for scrupulous implementation of agreed IMO rules and gradual harmonization of national legal and regulatory dispositions with the EU standards. Further approximation of legal regimes and closer cooperation among implementing agencies acquire increasing importance. Future joint action in this direction would lead to an enhanced responsibility of flag and port states for the seaworthiness of maritime shipping, safety at sea and enforcing environmental rules.

- 65. The European Commission has an active policy to promote Short Sea Shipping. This form of transport mode is highly efficient in terms of environmental performance and energy efficiency. It has the potential to solve road congestion problems affecting many parts of the European continent. All the studies point out the necessity of encouraging short sea shipping to meet the goal of the European sustainable transport policy. The Commission has a strong promotion policy, supporting coordination centers for short sea shipping in all coastal EU Member States. The establishment of a "European maritime transport space without barriers" should help to boost short sea services in all maritime regions. This concept would ensure a reduction of the administrative requirements and of the controls that apply today to the intra-EU seaborne trades and that do not apply to similar road transport services. Comprehensive program on Promotion of Short Sea Shipping contains actions and measures mentioning the actors responsible (timetable is 2003-2010) for each measure, including description of legislative, technical and operational initiatives which are aimed at developing Short Sea Shipping at EU, national, regional and industry levels.
- 66. The "motorways of the sea" concept aims at introducing new intermodal maritime-based logistics chains in Europe bringing about a structural change in the transport organization in the future. The matter of concept is an efficient integration of seaborne connections with land modes, especially railways, and enhancement of inter-modality. Objective of the EU policy in this field is focused on making maritime-based logistics chains more sustainable and commercially more efficient, than road-only transport that will improve access to markets throughout Europe, and bring relief to the over-stretched European road system.
- 67. Within this concept the EU has designated four corridors and two of them embrace the Black Sea region. The first one is Motorway of the Sea of south-east Europe connecting the Adriatic Sea to the Ionian Sea and the Eastern Mediterranean. The second is Motorway of the Sea of south-west Europe connecting western Mediterranean with Spain, France, Italy and Malta and linking with the Motorway of the Sea of south-east Europe, including links to the Black Sea. According to the EU objectives, a fully fledged network of motorways of the sea should be established throughout Europe on these corridors by 2010. It should be noted that MoU on the Development of the Motorways of the Sea in the

- BSEC by its essence is based on the EU concept.
- 68. Fundamental basis of the EU's transport policy is the concept of the Pan-European Transport Corridors being a part of the Trans-European transport infrastructure development created in the last years. Ten Pan- European Transport Corridors were endorsed by the transport ministers on Crete in 1994 and in Helsinki in 1997. In parallel with the Pan-European Transport Corridors, the concept of the Pan-European Transport Areas (PETRAs) four European transport zones covering sea basins of the Mediterranean, Black, Adriatic/Ionic seas and the area of the Barents Sea, the European part of Arctic, has been evolved at the Crete and Helsinki Transport Conferences. Among ten Pan- European Transport Corridors those, which are related with maritime transport, are as follows:
  - Corridor VII, the Danube, passes through eleven countries, including four BSEC member states Bulgaria, Moldova, Romania, Serbia Ukraine and Austria, Germany, Hungary, Slovakia, which are the observer states in the BSEC, and the synergy effects of using its route together with upgraded transport via Black Sea ports. Aims of the development of this Corridor are to realize concerted policies in development of Danubian traffic. The great importance of that transport route can be seen already by the speed with which the port Constantza (Romania) has turned into the largest Black Sea port and joined the 15 most mighty and loaded ports of Europe.
  - Corridor VIII is an important link between the Black Sea and the Adriatic. Its development will be an important factor for economic development of the involved countries and can bring very significant social and political benefits. The development of this Corridor is strongly linked with the development of the two main ports of the Black Sea Bourgas and Varna. The parallel development of Corridor and ports can have significant effects in the international East-West traffic.
  - Corridor IX, the longest of the Pan European Transport Corridors from Finland (Helsinki) to Bulgaria and Greece, with a branch to Odessa (Ukraine), is a historic European Corridor, traditionally serving high freight flows, in a north-south direction, serving both the Mediterranean and the Black Sea basins. One of the objectives of that route is to attract the most economically profitable Russian and Ukraine cargo flows from national sea access through their own ports, to sharpen competition in the port and feeder services sectors in the Black Sea basin, thereby decreasing shipper's expenditures.
- 69. Another core EU transport program is TRACECA (Transport Corridor Europe-Caucasus) aiming towards the development of the transport corridor from Europe across the Black Sea through Caucasus and the Caspian Sea to Central Asia. At the Helsinki conference in 1997 it was decided to integrate TRACECA with PETRAs of the Black Sea basin. In the framework of TRACECA the main projects related with maritime transportation are the follows: connection of the Black Sea ports with Baku as a central corridor through Caucasus, a Ro-Ro link from Poti to Ilyichevsk for Corridor XI, a ferry from Ilyichevsk to Constantza linked to Corridor IV, a ferry from Poti to Varna linked to Corridor IV. At the development level logistical **TRACECA** program foresees construction/rehabilitation of rail ferry ramps, as well as the procurement of computers and communication equipment to the ports Poti and Ilyichevsk.
- 70. Research and development programs of the EU in this field can present interest and possible application in the BSEC region. The EC supports maritime and port projects, including cargo tracking, tracing, electronic chart display and information systems. EU

- policies are targeted at research and development on transshipment, standardized load units and freight integrator. In this regard, EU provides the funding programs exploitable for port projects.
- 71. Due to the variegated status of individual Black Sea countries in their formal relationships with the European Union (EU members, countries engaged in accession negotiations, aspiring candidates, and non-aspirant partners), the use of available EU instruments, both political and financial, has to be differentiated. In order to be cost-effective and economically efficient, it will have to combine the resources allocated under structural and cohesion funds, the European Neighbourhood Policy nd the strategic partnership with Russia. It is encouraging to note that European Investment Bank (EIB) funding is now available for major regional projects in the Black Sea space, including the maritime domain.

#### VI. CONCLUSIONS

- 72. Sea transport is a base for future economic and social success of the Black Sea region since its vital role in the economic growth and competitiveness in the globalized world is clear. Moreover, analysis and forecast of economic tendencies indicates that the transit traffic only through the axis Europe-Asia extending through the Black Sea region will increase within next years. On this period the volume of sea transportations will be significantly increased as well, both in terms of passenger's traffic and cargo flows. Of course, these processes urge the member states to concentrate efforts on the development of maritime infrastructure, where along with successful achievements a number of crucial problems still exist.
- 73. Globalization of trade, industrial growth, location patterns and shaping of new markets creates outstanding opportunities for the development of sea transport in the Black Sea region. In this regard, clear identification of institutional and infrastructural problems is a prerequisite for sustainable and long-term strategy on the development of sea transport. Adequate institutional and regulatory framework will play a key role in dynamism of sea nodes, policy reforms towards liberalization of logistic sector can improve the capacity utilization of existing physical infrastructure. Emphasis should be given to participation of private sector for increasing efficiency and being more responsive to user needs.
- 74. Taking into account the aims for the maritime links for the maritime links and communications in the region determined by interests of the BSEC countries, the main problems in the sphere of efficient functioning and further development of regional maritime links and communications are as follows:
  - ensuring safe and efficient navigation in the Bosporus strait with volume and intensity, which would satisfy the needs of the Black Sea countries, including the transit of cargoes for Caspian region through the Black Sea;
  - providing safe conditions of the navigation, creation of a proper system for the shipping management and eliminating of dangerous situations during cargo handling works, which further can lead to the emergency situation;
  - reconstruction and further proper ensuring of standard (normal) conditions for navigation in the entry of Danube and on the exit of Danube to the Black Sea.
- 75. The Bosporus channel is the most important sea link for the Black Sea countries with world oceans and continents. Naturally, the problem of using the channel both in Turkey's interests and in accordance with the needs and requirements of all countries of the Black Sea region demands balanced, thoroughly considered and complex decision.

- 76. Tragic events happened in navigation during the last years have revealed a number of unresolved issues concerning safety problems in the region. There are unsolved issues in shipping traffic, in distribution of responsibility for different aspects of navigation safety and in the methods of using sea areas in the region for road loading-discharging of vessels.
- 77. As far as sea ports play crucial role in the development of maritime transport, harmonization of technical and administrative standards should be realized ensuring interoperability and interconnection between information systems, including reduction of administrative procedures, standardization of loading units, that will lead to efficient integration of ports ensuring an effective intermodal supply chain. Simplification of trade procedures is the issue requiring immediate measures since present custom practices remain the most notorious barriers in prompt activities of ports.
- 78. BSEC has done valuable work in the field of cooperation in sea transport. Momentous event in this direction was a signing the Memorandum of Understanding on the Development of the Motorways of the Sea in the BSEC Region in Belgrade in 2007. However, there is a strong need for strengthening cooperation on sea transport, because namely economic challenges in this mode of transport are most complicated. Enhanced coordination activities should be focused on the aspects of maritime industry, including shipbuilding, renovation of fleet, and observance of international environmental standards, improvement of services, safety and security.
- 79. Necessity for initiating the installation of information and communication technologies (ICT) and electronic data interchange (EDI) in all ports of the region is conditioned by the modern trends in transport. Such a system will increase the productivity and efficiency in cargo handling operations and vessels control. The application of ICT and EDI id a tool for trade facilitation and increase of the services provided to the port users.
- 80. The maritime policy of the EU is the useful and comprehensive experience for the BSEC region. Besides the issues of services, safety and security, EU research & development programs in the field of maritime transport could be considered as the positive contribution to further development of the maritime transport of the Black Sea region. Undoubtedly, enormous impetus to the process of developing maritime transport is given by the EU programs, such as TRACECA.
- 81. Successful development the maritime transport in future will contribute to effective business competitiveness of the Black Sea region in the European and world markets. This development is directly related to the stability, welfare and prosperity of every nation in the region.