

## **FORECAST ON THE ECONOMIC DEVELOPMENT OF THE SEASIDE TERRITORY UNITS OF VARNA AND BOURGAS BAYS IN THE PERIOD FROM 2007 TO 2015**

### **INTRODUCTION**

The present report provides a forecast on the economic development of the seaside territory units of Varna and Bourgas bays, subject to assessment in the report of ‘Analysis of the tendencies of the social and economic development of the seaside territory units of Varna and Bourgas bays in the period from 1998 to 2006’. The present forecast covers the period from 2007 to 2015, including the development in the sectors studied in the period from 1998 to 2006 – industry, power engineering, tourism, harbour activities and navigation.

The chief official sources of information for the forecast are the Bulletin on the condition and development of power engineering of the Republic of Bulgaria – August 2008 (on the condition and development of power engineering with a concept of the energy strategy of Bulgaria till 2020) of the Ministry of Economy & Power Engineering, the National Program for development of the ports for public transport 2006 – 2015 of the Ministry of Transport, the Regional Plans for development of the Northeastern region for planning (NERP) and the Southeastern region for planning (SERP) of December 2005 for the period from 2007 to 2013, the District strategies for development of Varna and Bourgas Districts for 2005 – 2015, the Municipal plans for development 2007 – 2013 of the municipalities included in the study, other plans and strategies for the territories development, Internet researches, publications in the media, information from interviews and own expert assessments.

The forecast has been worked out assuming that:

- The tendency of growth of the economic development will continue in the period from 2007 to 2015 due to the new opportunities for the country as a full EU member and the utilization of the financing from the European structural and cohesion funds;
- Preservation of the political and macro-economic stability in the country in the long-term;
- International political stability and absence of economic cataclysms which in the long-term may have a negative effect on the overall business environment and the external image of the country.

It should be pointed out that the starting and final terms of the regional and municipal development plans are 2007 – 2013 and 2005 – 2015 of the district strategies. In fact this means that different reporting and initial data, assumptions and speculations, as well as different methods of compilation have been used in working them out. Furthermore, no sectoral or specialized economic planning and forecasting is in place on regional and municipal levels due to the prevailing private nature of ownership in economy, and the national programs only plan the activities including state monopoly and licensing regimes. Due to the nature of economic planning in Bulgaria, the forecasting indexes of industry development in the municipalities can be derived from the national programs and worked out independently with a very wide range of probable deviations and specified only if a special

study is carried out. The regional and municipal plans in most cases contain organizational and administrative measures only, without any specific valuation of the individual activities and tasks.

The data for the medium-term and strategic planning of the private enterprises in the major sectors and branches is treated as trade secret and it is not published.

**The present forecast does not take into account the anticipated adoption of the Euro in Bulgaria as a national currency unit and the related changes in the national finance and economy.**

**Our forecasts of the economic development of the Bulgarian Black Sea coast take into account the overcoming of the consequences of the financial and economic crisis in mid and second half of 2008 and resumption of the economic activity to the pre-crisis level by the end of 2010.**

## **1. Demographic forecast of development of the municipalities of the regions of Varna and Bourgas Bays**

The chief factors determining the demographic development of the municipalities in the area of Varna Bay (including mainly the city of Varna and Varna Municipality) include the development of tourism and services sectors, the offering of vacant workplaces and opportunities for higher income, the existence of better life and entertainment conditions, the mechanic populating of inland citizens and a growing number of citizens from EU countries and from neighbouring countries such as Macedonia and Turkey (which will probably be admitted to EU in the period) and the increase of the average life expectancy. Based on these factors, a population growth at higher average annual statistical rates than those registered till 2006 can be forecasted.

Disregarding the errors and omissions in the demographic statistics system for Varna, which can only be identified by a regular or extraordinary census, an assumption can be made, based on the official data of the national statistics of the dynamics till 2006 alone, that the population of the city of Varna will continue to grow. However, if estimates are made by indirect indexes, such as number of newborn with parents living in the city without address registration; consumption of basic foodstuffs; number of passengers of the public transport; number of registered and vehicles as at the end of 2007, then the presumed number of residents on the city territory would be at least by 15-20% higher than the officially registered.

Based on:

- a) the existing basic models of demographic development – tendential, optimistic for the age structures and the number of population, and pulsating city and futuristic for the permanent migration and pulsating city; and
- b) the factors affecting the demographic development – **stimulating** (national and regional functions, geographic location, human resources, material base in place, tourist industry and infrastructure, historical and cultural heritage, investment attractiveness,

positive changes in the demographic behaviour) and **impeding** (demographic, economic, legislative and ecological), the following results of the estimates of the number of population of Varna Municipality by 2015 according to the development models have been obtained:

- Tendential – 378 000 residents;
- Optimistic – 428 000 residents;
- Futuristic – 478 000 residents.

The optimistic forecasts of the number of population of Varna Municipality in 2015, i.e., 428 000 people, can be realistically used for management purposes.

The assumptions for the population of Devnya and Beloslav municipalities in the period till 2015 are that its number will be stabilized. The natural and mechanical growth will be compensated and the number of their population will remain unchanged. Thus, the population of the three municipalities of Varna Bay in 2015 is assumed to reach a total of about 445 000 people.

The chief factors affecting the demographic processes in the municipalities of Bourgas Bay are the continuing development of tourist industry and the growth of employment in the sector; the expected setting up of significant infrastructure facilities in the field of natural gas transit; the development of Bourgas port; the offering of developed terrains for populating; the increase of the joint cross-border projects with Turkey and other stimulating, as well as some impeding factors.

Since the greatest part of the above-mentioned factors have impact on the population growth in Bourgas Municipality (the city of Bourgas mainly), the negative tendency for decreasing the number of population in the years till 2006 is expected to change quite soon. In case the effects of the economic factors continue, the number of permanent population should be expected to grow by 20-21%, reaching about 250 000 people by the end of 2015.

The tendencies of population growth by natural and mechanical ways are expected to continue in the other municipalities with developed tourism in the area of Bourgas Bay, too. Nessebur Municipality will develop at faster rates than the other Black Sea municipalities of the Bay due to the development of Sunny Beach resort as a place of permanent residence. According to the experts, a growth of the municipality population by about 17-18%, to reach 25 000 people, can be assumed. Pomorie Municipality will preserve the tendency of population growth, too, due to both the better age structure in the age range of 0-14, presuming a natural growth, and the mechanical growth as a result of settling of people from inland. As per estimated data, by the end of the period Pomorie Municipality will have a population of about 30 000 (a growth by 9-10%). Due to the similar conditions, the population of Sozopol Municipality is expected to grow, too, by 2015 by about 9-10%, reaching a total number of about 15 500. This will be the result mainly of the migration to the municipality exceeding the natural development of the population numbers. According to experts' estimations, the population of Sredetz Municipality will reach 19 000 people by 2015 which will be mainly due to the growing demand for workforce and to entering the fertile age of the population of the age group of 0-14. Currently, this age group has a relatively high share in the total population structure.

### **Conclusions:**

1. **The forecast for the population of Varna, Devnya and Beloslav municipalities is to reach 450 000 people by the end of 2015, mainly on account of the growth of the population of Varna Municipality.**
2. **The forecast for the population of the municipalities in the area of Bourgas Bay is for it to reach 340 000 people by the end of 2015, mainly due to the effects of the economic factors on the demographic processes in the region.**

## **2. Forecast for the industry development in the municipalities in the area of Varna and Bourgas Bays**

Based on the analysis of the industrial development of the municipalities in the area of Varna and Bourgas Bays in the period from 1999 to 2005 and the major priorities, objectives and measures of the national, regional, district and municipal strategic plans and programs for the purposes of the present report, the tendencies of economic development of the two regions for 2007-2015 can be summarized.

**The regional plan for development of the Northeastern region for planning (NERP)** provides for its main strategic goal – development of dynamic economy based on competitive abilities and innovations, with target indicators of growth of the gross domestic product in terms of absolute volume and percentage against each previous year. It sets out the task of reaching a GDP level per capita of over 50% of the average value thereof for EU by the end of the period. The average rate of GDP growth will be above the country's average (7-8%).

In the conditions of developing economic stagnation in 2008-2009 which had not been foreseen at the time of working out the regional plan, the average annual growth for Varna District is expected to be lower – of the order of 6%. Given a 6% average annual growth of GDP produced in Varna District, the GDP produced in the district in 2015 will grow by 79,1% against 2005, to reach BGN 4 818 420 thousand. Given a forecast for 95% share of the municipalities in the area of Varna Bay (Varna, Devnya and Beloslav) in the industrial production and the number of their population of 445 thousand people, the product per capita of the population will reach BGN 10 287. Compared to 2005 this will be a growth of the index of GDP per capita of the population in the municipalities of Varna Bay by 75,2%.

The regional plan provides for creating and development of the following clusters in the area of the municipalities of Varna Bay – Varna, Devnya and Beloslav (other municipalities may also be incorporated thereto):

- *Maritime industry – Varna*, including navigation, ports, shipbuilding and ship repairs, maritime resources, maritime science and education, all activities and services relating to the maritime business;
- *Chemistry – Devnya* with the production of soda, household chemistry, fertilizers, special plastics, special chemistry, polymers, industrial gases, dichloroethane, chlorine, PVC granules, pipes, polyethylene, polypropylene, production of building materials, glass, packing and other related activities.

All three municipalities of the Varna Bay area – Varna, Beloslav and Devnya, have been identified as areas of economic growth.

**The Regional plan for development of the Southeastern region for planning (SERP)** provides for the region development by economic growth rates faster than the average rates in

the country. Priority fields of development under SERP in the industrial sector are the food-processing and textile industries, wood industry and the production of machines and equipment. The plan's priority is providing of assistance in the development and increasing the competitive abilities of the processing industry enterprises. A specific goal has been set out for the annual growth of production in the priority sub-sectors of processing industry to be above the country's average by 2014. A special strategic goal of development of the cross-border and regional cooperation with priority on the cross-border cooperation with the Republic of Turkey has been set out. This development is oriented towards opening the national space and to overcoming the structural and economic problems of the border regions ensuing from their peripheral location and the relative isolation from the national economy. The specific goals till 2014 include an increase by 40% of the passenger flow, cargo flow and goods flow through SERP and an increase of the Turkish investments by 10%.

The regions for targeted impact included in SERP by the classification of the National Institute for Statistics, are: Bourgas and Nessebur municipalities as regions of economic growth, Sredetz and Sozopol municipalities as backward country and border regions, with Pomorie municipality falling within none of the categories.

Based on an analysis of the industrial production realized in the period from 1999 to 2005 in Varna and Bourgas Districts and the strategic goals under their regional development plans in the present report, an expert forecast has been made for the volume of industrial produce till the end of the 2007-2015 period for each of the two districts. Statistical data for the average annual rate of growth of the produce value in the 1999-2005 period has been used, disregarding the years of negative annual growth rates (2002 for Varna District and 2001 for Bourgas District according to Table 14). Given the average annual growth of the industrial production for Varna District thus specified at 12,93%, the value of the industrial produce is expected to grow in 2015 by nearly 3 times against 2006, to reach BGN 4 846 million in the last year. Given an average growth of 12,15% for Bourgas District in 2015, a growth by 2,81 times of the industrial produce realized is expected whereby its value in the last year is to reach BGN 7 770 million.

The analysis of the industrial produce realized in the three municipalities of Varna District – Varna, Devnya and Provadiya – shows that their production represents about 93,5% on the average of the annual industrial produce realized in the district (Table 15). If we assume that their share will grow slightly to reach 95% in the structure of the district industrial production, the expected volume of industrial produce realized in the three municipalities may exceed BGN 4 600 million. The factors of growth of their relative share include the increase of the production efficiency, the development of intellectual production processes with high added value and the increase of the amount of investments in these municipalities.

The tendency of reduction of the persons employed in industry is expected to continue in the three municipalities compared to 1999-2006 (Table 16), whereby the average productivity growth per employed person will increase by 3 points (from 25 to 28%) in Beloslav Municipality, by 4 points (from 24 to 28%) in Devnya Municipality and mostly in Varna Municipality – by 6 points (from 14 to 20%) – Table 18.

The growth of the industrial produce realized in Varna District for the prognosticated period will continue to be formed mostly by the production of Varna Shipyard AD, Odessos Ship-repairing Works AD, the chemical works of Solvay Sodi AD, Agropolychim AD, Devnya Cement AD in Devnya Municipality and Maritime technical group Varna AD in Beloslav Municipality.

Bourgas and Sredetz municipalities have the best developed industrial share in the economy among the municipalities in the area of Bourgas Bay. There the growth of industrial



production in the 2007-2015 period will continue to be due mainly to the production of Lucoil Neftochim Bourgas AD, Bourgas Shipyard AD, Elkabel Bourgas, Ship repairing Yard AD, the furniture enterprises of Kronoshpan AD, Detelina OOD, Dograma OOD in Bourgas Municipality and Promet Steel AD, village of Debelt, and Plastic articles AD, Sredetz, in Sredetz Municipality.

The enterprises on the territory of Sredetz Municipality intend to start and/or expand the production of bio-decomposing articles, eco-packing for foodstuffs, light packing for agricultural products transportation, insulation elements of expanded polyethylene, polyester fibers of ground bottles, technical articles of structural plastics and polypropylene fibers.

Given an estimated 5% annual GDP growth in Bourgas District, in 2015 the GDP produced in the district will grow by 62,9% against 2005, to reach BGN 4 020 981 thousand. Given the forecasts that by the end of 2015 the municipalities of Bourgas Bay will form 80% of the GDP of the district and that their population will be 340 000 people, the product per capita of the population in these municipalities will reach BGN 9 461 thousand, standing for a growth of 60,5%.

### Conclusions:

1. **The forecast for the value of the industrial produce realized in Varna District is for it to grow by almost 3 times in 2015 against 2006, to reach BGN 4 846 million.**
2. **A growth by 2,8 times of the industrial produce realized in Bourgas District is expected in 2015, whereby its value in that year is to reach BGN 7 770 million.**
3. **The industrial production growth rates in Varna District will continue to be ahead of those in Bourgas District but their values will be closer.**
4. **Given a forecast of average annual GDP growth of 6%, in 2015 the produce per capita of the population of the municipalities of Varna Bay (Varna, Devnya and Beloslav) will reach BGN 10 287, standing for an increase by 75,2% against 2005.**
5. **Given an annual GDP growth of 5%, the GDP produced in 2015 in the municipalities of Bourgas Bay will reach BGN 9 461 per capita of the population. Compared to 2005, this will be an increase of index value by 60,5%.**

### **3. Forecast for the development of the power engineering sector in the areas of Varna and Bourgas Bays**

The forecast for the development of the power engineering sector in the municipalities of Varna and Bourgas Bays is an extract from the Bulletin on the condition and development of power engineering in the Republic of Bulgaria of August 2008. The bulletin has been issued by the Minister of Industry and Power Engineering and includes a Concept of the energy strategy of Bulgaria till 2020.

It is noted in the report that a total of 295,4 million m<sup>3</sup> of natural gas have been extracted in 2007, of which 286 m<sup>3</sup> from the Galata deposit to the south of Varna. The official estimates foresee an approaching exhaustion of the deposit. The public supplier of Bulgargas EAD has a contract for natural gas supply from the deposit till 31.12.2008.

The country's major importer and processor of oil is Lucoil Neftochim Bourgas AD. In 2007 the company produced 5,6 million tons of oil products (motor, diesel and aircraft fuel and oils). The oil products have been predominantly sold on the Bulgarian market.

In 2007 the sales of the gas distributing companies were up by 17,7% against 2006, with those of Overgas growing by 13% (Primagas AD and Varnagas AD for Varna Municipality) and by 26% of the Black Sea Technological Company (setting up a gas distribution network for Beloslav Municipality). The preliminary forecasts for the gas consumption in Varna District foresee for consumption of about 400 million m<sup>3</sup> per year by 2015. The existing transfer system has the necessary capacity for transfer of such quantities. It has been planned for the gasification network of Varna to reach 309 km by 2013.

No setting up of strategic power engineering facilities to ensure the safety and uninterruptedness of the power supply is envisaged on the territory of the municipalities of Varna and Bourgas Bays in the period till 2015.

The South Flow project planned to pass through the territory of Bulgaria with its outlet probably positioned in Pasha Dere locality near the existing pipeline of Petreko SARL from the underwater gas deposit of Galata Cape, is still being designed. The gas-main will be about 900 km long and will run over the bottom of the Black Sea. After Varna, it will branch off to the South across Greece and the Ionian Sea to South Italy and to the North to North Italy across Serbia, Hungary and Slovenia with a branch to Austria. The marketing studies and the technical and economic developments of the project are to be completed by the end of 2008. The first gas supplies are envisaged to start in 2013. 31 billion m<sup>3</sup> of natural gas annually are expected to be conveyed.

**The strategy for development of Varna District till 2015 includes:**

- Supplying the district with networks and facilities for electric power, gas and fuel transfer from the trans-European, national and regional networks, setting up of new networks and facilities and rehabilitation of the existing ones;
- Setting up and rehabilitation of power networks securing the economic development of the business zones and the new urbanized territories – networks and electrical sub-stations, reconstruction and rehabilitation of the existing low voltage networks;
- Working out and implementation of strategies and programs for power efficiency in view of cutting down the costs in the public and production sectors;
- Working out and implementation of systems for reducing the energy consumption, power cogeneration, effective power management;
- Encouraging the setting up of facilities for renewable power sources use: geothermal energy; biomass energy; wind, sun and water energy, in view of reducing the energy production from traditional power sources.

**The strategy for Bourgas District provides for:**

- setting up of additional substations for transformation from high to medium voltage around the Black Sea municipal centers and resorts;
- alternative power supply with natural gas being underestimated at this stage;
- development of innovative technologies for use of alternative sources such as wind power along the Black Sea coast, as well as of the high and low tide (experimentally) and power generation by waste resources processing.

According to the plan for development of Varna Municipality, given the tendencies of development and the growing construction activities, setting up of 5 new substations is envisaged: Trakata substation (Note: already built), Hristo Botev substation, Center substation, Izgrev substation and Galata substation at a later stage. Expansion of Asparuhovo substation is envisaged by fitting a second transformer and increasing the installed power of Lazur substation. The plan provides for setting up of VEL HV – 30 km, KL HV – 50 km, setting up of 200 kiosk switchgears, VEL MV – 100 km and KL MV – 900 km. A new cable line will be laid between Varna West substation – Center substation – Chaika substation. A new cable line will connect Maksuda substation – Hristo Botev substation – Varna South substation. The power airline between Asparuhovo substation and Varna South substation will be replaced by cables. Trakata, Izgrev and Galata substations will be supplied through branches from the existing power airlines. The power airline between Maksuda substation and Varna West substation will be replaced by cables since its route currently runs through residential areas.

There are over 160 public and administrative sites on the territory of the two gas distributing companies in Varna, of which 100 falling within the scope of the license of Varnagas AD and about 60 – of the license of Primagas AD. In the period till 2013 Varnagas AD plans to set up a gas distribution network of about 350 km in total, including a network to Sv. Sv. Konstantin i Elena, Golden Sands Resort and Klise Bair locality. The potential of this network is for over 150 000 users, of which about 500 industrial (incl. 100 municipal) and the remaining ones being households. The gas distribution network planned to be set up by Primagas AD is about 55 km, including Asparuhovo area. The potential of this network is for 50 industrial users, 90 public, administrative (incl. 60 municipal) and commercial ones, and about 2000 potential household users.

The municipal plan for development of Devnya Municipality for the period from 2007 to 2013 provides for gasification of the residential quarters of Devnya and the village of Kipra.

**Beloslav Municipality** plans to gasificate 8 public establishments – schools and kindergartens - in the period till 2010.

The future sites for energy production from water sources, including using the geothermal energy in the area of Varna Bay cannot be objectively listed in the present report. This is mentioned as a general goal only in the strategic governmental documents we have studied. Some quality indexes of electric power production from various alternative sources are indicated, without specifying their location or the time of setting up thereof.

An increase of the electric power consumption in the places with large tourist flow has been provided for in the municipal plan for development of Bourgas Municipality. The long-term plan of Gas Supply EAD provides for setting up of 272 km of gas distribution network. 188 industrial users will be included till 2013 and 170 public and administrative buildings and 24 862 household users till 2014. The city has been divided into districts and the gasification will take place by stages. A gas distribution network will be set up in zone 1 (North industrial zone, parts of Vazrazhdane and Br. Miladinovi residential areas and partially, South industrial zone) in 2006-2008. Zone 2 (the remaining part of the South industrial zone, the remaining part of Br. Miladinovi residential area and part of the central part of the city) will be gasificated in 2007-2009. Zone 3 (the remaining central part and parts of Lazur residential area) will be developed in 2008-2014 and zone 4 (part of the city center and two of the parts of Meden Rudnik residential area) – in 2009-2014. Gasification of the remaining part of Meden Rudnik residential area and Sarafovo area, included in zone 5, is envisaged for 2010-2014. Zone 6 includes Kraimorie area and is planned for 2011-2014.



After the privatization of Toplofikacia-Bourgas EAD the entire investment program of the company is focused on setting up of a cogeneration plant.

In its municipal plan, Sredetz Municipality has provided for gasification of the town, setting up of 2 kiosk switchgears in the town of Sredetz and in the village of Dragachevo, reconstruction of the electric power networks in the village of M. Carkva - village of Fakia - village of Zornitsa and the village of Suhodol – village of Malina and rehabilitation of public buildings, including the building of the municipal administration.

**The plan of Nessebur Municipality for 2007-2013 includes:** completion and modernization of the energy infrastructure by setting up of new substation 110/20 kW in Sunny Beach Resort; completion of substation 110/20 kW in the town of Obzor; setting up of new junction stations 20/20 kW – Zora, Chernomorec; setting up of new transformer posts and connecting them to the MV mains for the newly formed residential and villa zones; repairing and reconstruction of the power supply network in the populated places; fitting of street lighting along the panoramic alley in the town of Nessebur – new town; working out a project for alternative power supply for gasification of Nessebur, Sunny Beach Resort, the village of Sv. Vlas, the village of Ravda and Elenite.

In its municipal plan for 2007-2013, Sozopol Municipality provides for setting up of new transformer posts, increasing the power and expansion of the electricity distribution network in the seaside zone of the municipality, completion of the cable network in the old part of Sozopol, setting up of additional transformer posts and increasing the density of the electricity distribution network in the inland towns and villages of the municipality, setting up of new transformer posts and connecting them to the MV mains of the newly formed residential and villa zones, repairing and reconstruction of the power supply LV network along the seaside, repairing and reconstruction of the power supply LV network in Zidarovo and other villages of the municipality.

No specific sites for electric power production from water resources, including geothermal waters and tidal power have been mentioned in the strategic documents of the Southeastern area for planning, Bourgas District and the municipalities in the area of Bourgas Bay. Due to inclusion of the seaside zones in Natura 2000, setting up of wind power parks along the seaside is not permitted.

The corporate structures operating in the field of power engineering and power supply on the territory of the municipalities of Varna and Bourgas Bays, such as Lucoil Neftochim Bourgas AD (power generation), TEZ Varna, E.ON Bulgaria EAD and other major companies do not publish information on their development which they consider trade secret.

### **Conclusions:**

- 1. The preliminary forecasts for the gas consumption in Varna District foresee for consumption of about 400 million m<sup>3</sup> per year by 2015. It has been planned for the gasification network of Varna to reach 309 km by 2013. It is envisaged for the sales of the gas distributing companies of Primagas AD and Varnagas AD (for Varna Municipality), of the Black Sea Technological Company (gas distribution network**

**for Beloslav Municipality) to be significantly increased in the municipalities of Varna Bay.**

- 2. The long-term plan of Gas Supply Bourgas EAD provides for setting up of 272 km of gas distribution network. 188 industrial users will be gasificated by 2013 and 170 public and administrative buildings and 24 862 household users till 2014.**
- 3. The first gas supplies by the South Flow gas-mains are envisaged to start in 2013. 31 billion m<sup>3</sup> of natural gas annually are expected to be conveyed.**
- 4. No setting up of strategic power engineering facilities to ensure the safety and uninterruptedness of the power supply is envisaged for the territory of the municipalities of Varna and Bourgas Bays in the period till 2020 in the Power Strategy Concept of Bulgaria.**

#### **4. Forecasts for the development of tourism in the municipalities in the area of Varna and Bourgas Bays**

Tourist division of the whole country has been made in the strategy of the State Agency for Tourism (SAT). No sharing of a municipality between two areas is allowed by such divisioning and the territorial scope of the voluntary regional tourist associations already established, is taken into account. When outlining the regions and their specialization, a uniform classification and terminology have been used as regards the tourist products or the types of tourism. The following hierarchy has been applied in the divisioning: tourist region, sub-region, micro-region, tourist center. The tourist area of the Black Sea coast has been divided into sub-areas: North Black Sea coast and Dobroudja and South Black Sea coast and Strandga. The main product specialization of the Black Sea tourist area is recreational tourism and additional specialization in cruise sea and boat tourism, festival, cultural tourism and extreme sports.

In the regional plan for development of SERP the priority is placed on providing of high-quality and attractive tourism and on the territorial balancing of the tourist development of the area, with the specific goal of improving the tourist development of the sea coast and measures envisaged for:

- Improvement of the tourist services quality in the big tourist seaside complexes and introduction of corporate quality standards for the tourist services, etc.;
- Extension of the tourist season by developing of water treatment (spa), congress, festival, informative and other types of tourism and supporting the activities and projects relating to renewal of the existing centers for congress and festival tourism (Varna, Golden Sands); providing of new beach space and conditions for boat tourism;
- Stimulating and formation of a Tourism cluster, closely related to the Food and Drinks and Maritime Industry clusters and other major functions in the area;
- Protecting the seaside territories from excessive tourist urbanization, relating to updating of the development plans of the Black Sea coast of the area and defining the optimum and maximum capacity of each location; creating a database of the offered appropriate locations and forms of investment in new tourist infrastructure, incl. golf-villages, holiday villages, tourist complexes, tourist 'neighbourhoods', tourist farms, dispersed forms of residential tourist bases in the populated territories and formations);

- Improvement of the tourist and technical infrastructure at the accommodation facilities (tourist zones and complexes), including financing of the activities of investment marketing in view of setting up of new high category tourist complexes and holiday villages, along with the servicing infrastructure; reconstruction and rehabilitation of the roads and road facilities providing access to the tourist zones/sites; reconstruction, rehabilitation and setting up of new infrastructure for public services in the tourist zones and sites (water & sewerage systems, power supply, telecommunications); setting up of new infrastructure, reconstruction or rehabilitation of the infrastructure improving the qualities of the environment and the functioning of the tourist zones/sites (parking lots, mobile exchanges, pedestrian lanes, exterior lighting, public WCs, public transport stops, etc.); implementation of projects for ecologization and anesthetization of the environment and landscape (planting, maintenance and setting up of new green areas, visual shields, sound protection barriers, waste baskets and containers, etc.); building of new and rehabilitation of the existing pedestrian lanes (including access for disabled persons), eco-paths, adventure paths, hereditary paths, bicycle lanes, horse-riding lanes, picnic/recreation places and other facilities of a specialized 'soft' tourist infrastructure.

Tourism has been given chief priority in the regional plan of SERP for the period 2007-2013 and the goals set out for the Black Sea tourism are:

- Income growth by 50% as a result of the investments in new, and reconstruction of the existing, material base, and increasing the quality of services and their diversification;
- Increase of the tourist flow out of the tourist season by 30% by diversification of the tourist product and complex use of the available and anthropogenic resources of the entire territory of the region.

Special measures have been envisaged in the plan, including:

- territorial development planning of the resorts and tourist villages, consistent management of the seaside zones and protected areas, implementation of mechanisms and stable criteria for responsibility and control on setting up the sites;
- investments in specialized tourist infrastructure – restoration and maintenance of the cultural and historic heritage; building of roads to the tourist sites; building of public parking-lots, WCs and other auxiliary facilities in the municipalities; designing and building of tourist paths, camping sites, harbours, shelters and other facilities; designing, making and fitting of information boards and road signs;
- attracting of Bulgarian and foreign average class tourists by developing and offering of new tourist products and proper marketing thereof.

The district strategy of Varna District for the 2007-2015 period provides for support and encouragement to creation and development of a Tourism cluster and for development of specialized service infrastructure – innovative, technological, information, financial, educational. It further provides for reconstruction, restoration and conservation of movable and immovable monuments of the cultural and historical heritage, setting up of new beaches and facilities for boating tourism, providing and improvement of the tourist infrastructure (with priority on the technical infrastructure), etc.

The district strategy of Bourgas District till 2015 provides for the district to become a leading tourist center with preserved natural and historical heritage by building of new high category tourist complexes and holiday villages with servicing infrastructure, assistance in

increasing the amount of investments in specialized tourist infrastructure, reconstruction and restoration of movable and immovable monuments of culture, extension of the tourist season in the big resorts by development of new forms – water and mud treatment (spa), congress, festival, educational tourism, etc., setting up of tourist information centers and linking thereof in a network, setting up of public private partnerships in the field of tourism, encouraging the creation of tourist clusters in the area, creation and maintenance of tourist databases, etc.

A team of experts of Varna Municipality has worked out a special program for sustainable development of tourism in the period from 2007 to 2013. The long-term quantitative objectives set out in the program include:

- Annual growth of the investments in the tourist industry on the territory of the municipality by 8-10%;
- Increase of the volume of income from tourism at higher rate than the increase of the number of tourists.

As regards quality, the program provides for tasks of preserving the attractiveness of the tourist resources of Varna Municipality; increasing the attractiveness of the anthropogenic resources of the municipality; reconstruction and modernization of the tourist infrastructure; assistance in increasing the quality and variety of the tourist superstructure; assistance in increasing the quality of the goods and services offered by the tourist industry.

The program provides for priorities, objectives and projects which within the scope of the present report are:

- Priority of ‘Setting up an attractive and safe environment for the tourists’ for the purpose of ‘Preserving the authenticity of the natural tourist resources’, including projects for rehabilitation of the beaches, reinforcement of the coast line, cleaning the shores of Varna Lake, cleaning and preservation of Golden Sands Resort;
- Priority of ‘Integrated development of the territory of Varna Municipality as a tourist destination – improvement of the tourist infrastructure’ for the purpose of ‘Turning Varna East Port into an infrastructural zone for tourism and entertainment’ and development and modernization of the transport infrastructure: turning the existing cargo handling wharfs of Varna East into a zone of tourist entertainment, building a boat port, aquarium, attraction establishments, trade centers, business buildings on 347 decares, building of a modern passenger terminal and other entertainment centers: for the purpose of ‘Introduction of convenient and ecologically friendly transport’ – setting up of 5 multistory parking lots in Varna, 2 in Golden Sands Resort and 1 in Sv. Konstantin i Elena Resort, building of 30 km of bicycle lanes from Varna to Golden Sands Resort and Sv. Konstantin i Elena Resort, building of bicycle parking lots – 5 in Golden Sands Resort and 3 in Sv. Konstantin i Elena Resort, designing and setting up of panoramic train from Varna to Galata, for the purpose of ‘Development and modernization of the transport infrastructure’ – completion of the Varna – Golden Sands highway, modernization of the bus station and building of panoramic parking lots along the main highways, for the purpose of ‘Development and improvement of the water supply & sewer infrastructure – new sewerage system in Vinitsa, Galata, the village of Zvezdica and the village of Kazashko.

The municipal plan for development of Varna provides for sustainable development of the sea recreation tourism and the complementing alternative types of tourism for the purpose of reaching an average occupancy rate of 105 hotel night’s lodgings till 2013. As a result of the

development of the tourist facilities (shelter facilities) to the South of Varna in the direction of Galata and the South areas of Varna Lake, their number in the municipality may grow by up to 15% against 2005 (given an average annual of 24% in the period of 2001-2005 – Table 24) to reach 345 (including those already set up in 2007 and 2008 on the territory of the entire municipality). In the experts' opinion, taking into account the forecasts for the period till 2013 in the municipal plan for development of Varna Municipality till 2015, the average annual occupancy rate may grow by another 2 night's lodgings, to reach 107 on annual basis.

Setting up of shelter facilities with the financial support of the European programs may be expected to start in Devnya and Beloslav municipalities.

The municipal plan for development of Bourgas Municipality provides for setting up and modernization of the tourist infrastructure; survey, designing and building of a boat port, eco-paths and alternative forms of tourism.

The chief priority in the municipal plan for development of Nessebur Municipality 2007-2013 is development of stable tourism by setting up a Tourism cluster. Apart from the organizational, technical and information measures and actions, the plan provides for assistance in the building of a golf course and village with the relevant local infrastructure, survey for building of 'tourist farms', attracting of high amount investments and ecologization by planting and green areas development. In this connection, measures have been provided for maintenance of the green areas and setting up of new ones – along the approach to Nessebur, in Sunny Beach Resort, the village of Sveti Vlas, the town of Obzor, rehabilitation of the network of pedestrian lanes – from the neck to the Nessebur beach, in Rusalka quarter, the approaches to the beaches in the village of Sveti Vlas, setting up of new pedestrian lanes and eco-paths, a system of bicycle lanes and parking lots, a network of roller coaster lanes in the entire tourist agglomeration of Ravda – Nessebur – Sunny Beach – Sveti Vlas – Elenite, further planting in the active tourist zone.

The main part of the municipal plan of Sozopol Municipality for the period from 2007 to 2013 is focused on creating of conditions for development of stable and effective tourism. It is envisaged for the beaches to be included in the Blue Flag movement, building of boat ports in Sozopol and Chernomoretz, rehabilitation and building of bridges, designing and setting up of pedestrian and bicycle lanes (Sozopol – Zl. ribka – Sv. Marina, Chernomoretz – Bakarlaka; Ravadinovo – Malkoto kale; Sozopol – Kavatzi – Duni, etc.), infrastructure for eco-tourism near the chapel of Sv. Marina and the micro-dams near the villages of Chernomoretz and Ravadinovo; setting up of light infrastructure and services for sport sea (Sozopol, Chernomoretz) and freshwater fishing (water basins near Chernomoretz, Ravadinovo, Ravna gora, Izvor, Gabar), organizing of intercity and attraction transport (roller coasters) – Chernomoretz (Chervenka) – Gradina – Sozopol – Kavacite, organizing of water taxi service at all points along the coast equipped with quays.

An expert forecast for the shelter facilities, visitors and night accommodations in the shelter facilities, for the number of beds and bed-days in the shelter facilities has been worked out for the 2007 – 2015 period, based on the data for the period from 2001 – 2005 (Tables 24 – 28).

We expect for the overnight visitors and night accommodations in Varna Municipality to grow by 70% and 80%, respectively, in the whole period, against 2005.



The tendency for Bourgas Municipality will be preserved and the number of night accommodations will continue to grow at higher annual average rate than the increase of the number of overnight guests. Given an average annual dynamics of the overnight guests of 2% in the period from 2001 to 2005, an average annual growth of 3% can be expected in the period to 2015. Given an annual average increase of the night accommodations of 6% in 2001/2005, we expect for this percentage to grow to 10% on average annual basis till 2015.

Given the average annual increase of the number of overnight guests in Nessebur, Pomorie and Sozopol municipalities ( by 68, 58 and 17 % in 2001/2005) and the night accommodations (by 62, 26 and 16 % in 2001/2005), we expect for the rates to decrease by half in the next years. Setting up of new bed accommodation base and shelter facilities will sharply shrink.

### **Conclusions:**

- 1. Tourism in Varna Municipality is expected to develop till 2015 to the South of the city and along the South shores of Varna Lake. The number of shelter facilities is expected to grow till 2015 by up to 15%, to reach 360. The number of overnight guests and night accommodations in the shelter facilities in Varna Municipality is expected to grow in 2015 by 70% and 80%, respectively, against 2005. Development of country, cultural, bio and other types of tourism by setting up of individual tourist base using funds under the Country regions development program 2007 – 2013 is expected for Devnya and Belosalv municipalities.**
- 2. Development of tourism in the municipalities of Bourgas Bay will continue to concentrate in the municipalities of Nessebur, Pomorie and Sozopol. The number of night accommodations in Bourgas Municipality may grow by 10% on average annual basis. The forecast for the rate of growth of the number of overnight guests and night accommodations in the next years in the municipalities of Nessebur, Pomorie and Sozopol is for them to decrease by half compared to the period 2001/2005.**

### **5. Forecast for the development of the port activities and navigation in the areas of Varna and Bourgas Bays**

The forecast for development of the port activities and the factors determining the lines of this development have been summarized in the National Program for development of the ports for public transport 2006 – 2015 of the Ministry of Transport, the Regional Plans for development of NERP and SERP for the period from 2007 to 2013, the District strategies for development of Varna and Bourgas Districts for 2005 – 2015 and the Municipal development plans.

According to the National Program for development of the ports for public transport 2006 – 2015 of the Ministry of Transport, the sectors to affect the relative share of the cargo turnover and the passenger flow, are:

- oil processing industry – oil import and export of oil products;
- metallurgy – import of ore, coke and other products of metallurgy and export of metallurgy products and scrap;

- power engineering – import of coal;
- construction – export of cement, domestic transportation and export of inert materials, import and export of construction materials and structures;
- agriculture – import and export of cereals and fodder;
- chemical industry – export and less import of fertilizers;
- light industry and other industrial sectors – import and export of various general and containerized goods;
- entertainment and tourist industries – providing of services to passengers and tourists.

Due to Bulgaria's lagging behind in the multimodal shipments, the Program after 2007 provides for higher rates of growth of the container and ro-ro shipping on account of the bulk and general cargo. The estimated growth of cargo turnover of the sea ports will be effected almost entirely by increasing the volume of container and ro-ro shipments. The container shipments are expected to reach TEU 150 thousand in 2007 and up to TEU 900 thousand in 2015. The ro-ro shipments are expected to follow the same tendency – that is, about 0,8 million tons in 2007 and 3-4 million tons by 2015.

The forecast made on the basis of statistical extrapolation by types of cargo and shipment mode, complying with the estimated indexes of development of the country's economy, envisages the following volumes:

<i>Year</i>	<i>Total</i>	<i>incl. sea ports</i>
2007	33,4 million tons	27,2 million tons
2015	44,2 million tons	34,7 million tons

In view of creating of conditions for the activity development and its modernization, the program provides for:

- Moving the port facilities for handling of bulk, liquid and other cargo generating ecological problems out of the towns' broad centers;
- Reconstruction of the port facilities situated in the towns' broad centers mainly into passenger ports, sport, recreation and business zones;
- Creating a possibility for receipt of ships of higher loading capacity by deepening the harbour waters and approaches and ensuring of sufficient abovewater clearance and maneuvering areas;
- Restoration and reinforcement of the port facilities – wharf walls, breakwaters and port territory and other elements of the port infrastructure;
- Port terminals specialization, modernization of the loading/unloading equipment and improvement of the work organization;
- Modernization of the security and safety port systems;
- Setting the port facilities and systems in compliance with the international and national environmental requirements;
- Providing of equipment for collection and treatment of the ships and port activities waste.

The favourable possibilities for development of the activities relate to the development of the economy in the area of the bays and the inland areas such as transportation entry-exit and to the volume of transit cargo and more active marketing activity ensuring cargo flow.

The development of the country's economy as a result of its EU integration will lead to significant increase of the import and export. This increase will not result in a situation of shortage of port infrastructure capacity. The increased cargo turnover will be dealt with by increasing the port loads which currently have the capacity of handling the estimated cargo turnover.

The expectations for development of the transit shipments after 2007 relate to increasing the cargo flow along the European transport corridors. The transit cargo flow will not significantly affect the estimated cargo turnover of the ports in the short-term. However, diversion of some cargo flows through Bulgaria may be expected in the long-term, provided that competitive logistic schemes are worked out.

Provided that favourable conditions for attracting and handling of transit cargo flows by 2015 are created, about 3-3,5 million tons of transit cargo annually through the sea ports may be ensured.

The implementation of projects and certain extraordinary circumstances not covered by the forecast, such as:

- Starting the project of Bourgas – Alexandrupolis and/or Bourgas – Vlyora, whereby the estimated transit oil cargo flow may reach 35 million tons;
- The development of corridor No. 8 – Duras – Scopie – Sofia – Varna/Bourgas will be carried out gradually, with expectations of attracting of significant cargo turnover from/to South Europe via Albania, as well as from/to the countries of the Black Sea region,

may have a favourable effect on increasing the cargo turnover via the Bulgarian ports.

#### **New facilities and expansion of the public transport ports of regional importance**

<i>Facility name</i>	<i>Purpose/basic parameters</i>	<i>Completion deadline</i>
<b>I. Varna region</b>		
Building of a new container terminal on the territory of Odessos – PBM Port	Setting up of port facilities for handling of 125 x TEU	2007 -2013
Building of a specialized terminal for base oils by expanding PCMB Port Varna	For handling of 150 thousand tons of fuel and oils	2008 – 2010
Building of a specialized terminal for liquefied gases	For handling of 200 thousand tons of liquefied gases	Stage by stage, 2007 - 2010
<b>II. Bourgas Region</b>		
Expansion of Ship repairing yard – Port Bourgas	For handling of general, bulk and liquid cargo	Stage by stage, 2008 - 2015

Source: National Program for development of the ports for public transport 2006 – 2015

**New sites and expansion of the public transport ports of national importance**

<i>Facility name</i>	<i>Purpose/basic parameters</i>	<i>Completion deadline</i>
<b>I. PORT VARNA</b>		
Building of a passenger terminal with a business center at Varna East Port	capacity – 250 thousand passengers annually. Creation of conditions for functioning of the maritime business companies	Stage 1 2007-2010 Stage 2 2009-2015
Building of container terminal Varna East	For handling of containers with capacity of 500 thousand TEU	2007 -2011
Building of a grain terminal on the North shore of Varna Lake	For grain handling with capacity of 1 million tons	2009 - 2015
Building of a terminal for liquid cargo in Konstantinovo – South shore of Varna Lake	For oil and oil products handling with capacity of 2 million tons	2009 -2013
Expansion of the container terminal – Varna West	Expansion for handling of 100 thousand TEU	2008 - 2010
Building a terminal for liquid hazardous cargo – Varna West	For handling of liquid hazardous cargo with capacity of 1,2 million tons	2006 -2010
<b>II. PORT BOURGAS</b>		
Expansion of Port Bourgas		
Building an approach canal to Port Bourgas		2006 -2007
Building of a passenger terminal with a business center at Bourgas East Port	Capacity – 100 thousand passengers annually. Setting up of an entertainment/recreation zone to connect the city with the sea	2011 -2015
Building of a container terminal – Bourgas West	With capacity for handling of 500 thousand TEU	2007 -2011
Reconstruction and setting up of new infrastructure at Rosenetz port terminal	For handling of oil products and liquid chemical products	2006 -2008

Source: National Program for development of the ports for public transport 2006 – 2015

The district strategy for development of Varna District in the period from 2007 to 2015 provides for development and modernization of the transport infrastructure, including:

- expansion of the existing ports and setting up of new terminals and wharf places along the shores of Varna and Beloslav lakes – new container terminal, new grain terminal, new terminal in a transit trading zone, new terminal for hazardous cargo at Varna West Port;
- ensuring the designed depths of – 16.50 m of the sea-lake navigation canal;
- completion of the Varna breakwater reinforcement;
- building of new and rehabilitation of the local road network, including improvement of the access to the ports.

The district strategy for development of Bourgas District in the period from 2007 to 2015 for development and modernization of the transport infrastructure includes measures for:

- Expansion of Port Bourgas;
- renewal of the servicing systems and mechanisms of Port Bourgas;
- restoration of the passenger navigation in the area.

The municipal plans for development of the bay municipalities provide for measures mainly relating to the leading in/out road and railway infrastructure, the technical communications and connections.

Varna Municipality works actively on the development and implementation of a project for building a modern container terminal at Varna Lake below Maksuda quarter on 220 decares. The quay wall will be 800 m long, allowing for simultaneous handling of four ships. A depth of 16 – 18 m is envisaged, allowing entry of vessels larger than those currently mooring.

In its municipal plan Nessebur Municipality provides for completion of the infrastructure and development of the water transport, including completion of the boat port on the South beach of Nessebur and building of a boat club with modern servicing infrastructure, a boat port in the South part of Old Nessebur, repairing the wharf on the South beach in New Nessebur, repairing the wharfs at Sunny Beach Resort, building a quay at Ravda Cape and opening of sea lines Nessebur – Sunny Beach – Sv. Vlas and Nessebur – Ravda (alternative transport by ‘sea taxi’).

Sozopol Municipality envisages renewal of the survey for building of a boat port at Vromos Bay near Chernomoretz, modernization of the small wharfs used by the tourists, modernization of the facilities and opening a coastal line of Chernomoretz – Sozopol – Duni – Ropotamo.

### **Conclusions:**

- 1. The estimated growth of cargo turnover of the sea ports will be effected almost entirely by increasing the volume of container and ro-ro shipments. The container shipments are expected to reach 150 thousand TEU in 2007 and up to 900 thousand TEU in 2015. The ro-ro shipments are expected to follow the same tendency – that is, about 0,8 million tons in 2007 and 3-4 million tons by 2015.**
- 2. The total volume of the handled cargo in 2015 will reach 44,2 million tons, including 34,7 million tons at the sea ports.**
- 3. New facilities and expansion of the existing ports for public transport of national importance – Varna and Bourgas Ports and those of regional importance. A modern container terminal will be built in Varna Municipality and Varna Lake below Maksuda quarter on 220 decares, a new grain terminal, new terminal in the transit trade zone, new hazardous cargo terminal at Varna West Port. Bourgas Municipality envisages expansion of Port Bourgas, renewal of the servicing systems and mechanisms and restoration of the passenger navigation in the area.**



## **GENERAL CONCLUSION**

**In the period from 2007 to 2015 the municipalities in the area of Varna and Bourgas Bays will develop at faster economic rates compared to the other regions of the country which may be a challenge for the governing territorial authorities on national, regional and local level for coordination and setting up of the servicing basic engineering and technical infrastructure and timely foreseeing and solving of the problems with the environment preservation.**

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**Бюлетин за състоянието и развитието на енергетиката на Република България – август 2008 година (за състоянието и развитието на енергетиката с концепция за енергийна стратегия на България до 2020 година) на Министерството на икономиката и енергетиката**

*Bulletin on the condition and development of power engineering of the Republic of Bulgaria – August 2008 (on the condition and development of power engineering with a concept of the energy strategy of Bulgaria till 2020) of the Ministry of Economy & Power Engineering*

**Национална програма за развитие на пристанищата за обществен транспорт 2006-2015 година на Министерството на транспорта**

*National Program for development of the ports for public transport 2006 – 2015 of the Ministry of Transport*

**Регионални планове за развитие на Североизточния район за планиране (СИРП) и Югоизточния район за планиране (ЮИРП) от м. декември 2005 год. за периода 2007-2013 година**

*Regional Plans for development of the Northeastern region for planning (NERP) and the Southeastern region for planning (SERP) of December 2005 for the period from 2007 to 2013*

**Областни стратегии за развитие на област Варна и област Бургас за 2005-2015 година**

*District strategies for development of Varna and Bourgas Districts for 2005 – 2015*

**Общински планове за развитие 2007-2013 на включените в изследването общини**

*Municipal plans for development 2007 – 2013 of the municipalities included in the study*

**Концепция за енергийната стратегия на България до 2020 г.**

*Concept of the energy strategy of Bulgaria till 2020.*