

GOVERNMENT of the REPUBLIC of LITHUANIA

Resolution
On The Baltic Sea Environmental Protection Strategy
Approval

25th of August 2010 No. 1264
Vilnius

According to the Government of the Republic of Lithuania 2008-2012 program implementation measures, adopted by the Government of Lithuania on 25th of February 2009, based on resolution No 189, by implementing 914 items, the Government of the Republic of Lithuania orders:

1. To approve the Baltic Marine Environment Protection Strategy (attached).
2. To assign for the Ministry of Environment:
 - 2.1. to coordinate the implementation of the Baltic Marine Environment Protection Strategy
 - 2.2. to submit until the 1st of March the annual report about the previous year's implementation of strategy, mentioned in the item 1, to the Government of the Republic of Lithuania.
3. To recommend to the municipalities to participate in the implementation of the Bathing Water Quality monitoring program 2009-2011.

Prime Ministry

Andrius Kubilius

Ministry of Environment

Gediminas Kazlauskas

APPROVED

By the Government of the Republic of Lithuania
Resolution No 1264 25th of August 2010

BALTIC MARINE ENVIRONMENT PROTECTION STRATEGY**I. STRATEGY SUMMARY**

1. The following table gives Baltic Marine Environment Protection Strategy Summary

<p><i>The Strategic aim</i> – to achieve and (or) maintain the good environmental state of Baltic Sea by the year 2020:</p> <ol style="list-style-type: none"> 1. To protect and preserve marine environment, do not allow deteriorating its condition, and, if possible, to restore areas of marine ecosystems, in which this environment is affected negatively. 2. To prevent pollution access into the marine environment or to reduce it, which would guarantee, that marine biodiversity and ecosystems, human health or illegitimate exercise of marine environment would not effect harm or high-risk. 	
<p><i>Strategic objectives' evaluation criteria (criteria for effect):</i></p> <ol style="list-style-type: none"> 1. Access of nutrients into Baltic Sea: present value (at 1997-2008) – of nitrogen- 45 627tons, of phosphorus – 2 198tons; Target value (in 2015) – nitrogen – 22, 3 % less (reduce up to 3, 2% annually), phosphorus 32, 1% less (reduce up to 4, 6% annually) direct or indirect loads into marine environment. 2. Concentration of hazardous chemical substances in the environment of the Baltic Sea: present value (at 2001-2008) – hazardous substances, studied from the water, exceeded 17% of maximum allowed concentration; Target value (in 2015) – 100% of all studied hazardous substances from the Baltic Sea district would not exceed maximum allowed concentration. 3. Reduction of pollution accidents: present value (at 2000-2009) – 391 accidents; Target value (in 2015) – 25 pollution accidents annually (reduce up to 5, 4% annually). 	
<p>STRATEGY OBJECTIVES AND TASKS FOR THE IMPLEMENTATION OF EVALUATION CRITERIA (Performance criteria)</p>	
<p>The first objective – is to achieve, that the marine environment protection management should be applied on the ecosystems-based approach, ensuring, that the impact of human would not disturb to achieve or to maintain the good status of the marine environment quality, and, where would not be made harm for the capacity of marine ecosystems to react into changes affected by people. At the same time, creating conditions for the current and future generations could use marine resources sustainably.</p>	<p><i>Performance criteria</i> – prepared and confirmed the law acts of upgrading marine environment protection and management in accordance with ecosystems-based approach: present value (at 2009) – 0 acts; target value (in 2015) – 7 acts.</p>

<p><i>Tasks:</i></p> <ol style="list-style-type: none"> 1. To improve management of marine environmental protection in the application of ecosystem-based approach. 2. Act in more close cooperation with other Baltic Sea Region countries concerning Baltic Sea environmental protection issues. 	
<p>The second objective – reduces nutrient inputs into Baltic Sea by the year 2016 (compared with 1997-2003): nitrogen – up to 11 750 tons, phosphorus – up to 880 tons, and seeks, that eutrophication, affected by human, does not reduce in the Baltic Sea and cause the negative impact for the environment.</p>	<p><i>Performance criteria:</i></p> <ol style="list-style-type: none"> 1. Decrease nutrient inputs into the Baltic Sea: present value (at 1997-2008): of nitrogen – 45 627 tons, of phosphorus – 2 198 tons; target value (in 2015): nitrogen – 35 456, 2 tons, phosphorus – 1 492, 4 tons. 2. Level of sewage, discharged directly or indirectly into the Baltic Sea, treatment increases among all wastewater treatment plants in cities: present value (at 2007): of total phosphorus – 86,4%, of total nitrogen – 73,2%; target value (in 2015): total phosphorus – no less then 90%, total nitrogen – no less then 75%. 3. Availability of wastewater management services for inhabitants increases: present value (at 2008) – 63% of country inhabitants had it; target value (in 2015) – no less then 95% of country inhabitants have it.
<p><i>Tasks:</i></p> <ol style="list-style-type: none"> 1. To ensure, that from all cities' wastewater treatment plants, directly or indirectly discharged sewage into the marine environment, would be removed: total phosphorus – no less then 90%; total nitrogen – no less then 75%. 2. To increase accessibility of wastewater treatment services and to improve their quality. 3. To reduce the pollution from the agricultural sources. 4. To determine restriction of phosphates in detergents. 	

<p>The third objective – seeks, that the concentration of hazardous chemical substances in the Baltic Sea does not induce pollution and negative changes of ecosystem.</p>	<p><i>Performance criteria</i> – concentration of hazardous chemical substances in the marine environment would not exceed the established environmental standards: present value (at 2001-2008) - hazardous substances, studied from the water, exceeded 17% of maximum allowed concentration; target value (in 2015) – hazardous substances, studied from the Baltic Sea district, would not exceed the maximum allowed concentration.</p>
<p><i>Tasks:</i></p> <ol style="list-style-type: none"> 1. To identify hazardous substances and their sources in the marine environment. 2. To decrease and, if necessary, to limit or forbid access of hazardous substances into the Baltic Sea. 	
<p>The fourth objective – achieves appropriate preservation level of Baltic Sea biodiversity.</p>	<p><i>Performance criteria</i> – enlargement of the most important protective territories in the marine district by the Europe Union (“Natura 2000): present value (at 2009) – about 4,5 % of sea area; target value (in 2015) – about 9% of sea area.</p>
<p><i>Tasks:</i></p> <ol style="list-style-type: none"> 1. To ensure sustainable functioning of the marine ecosystems, the habitat and species distribution, abundance and quality in line with the prevailing hydrological, geographical and climate conditions. 2. Save to a more natural marine and coastal landscape. 3. To ensure, that the populations of fishes, used for the commercial purpose, do not exceed the safe biological limits, does not entail loss of biodiversity. 	
<p>The fifth objective – seeks, that navigation or other economic activities in the Baltic Sea are executed in the favorable way for the environment.</p>	<p><i>Performance criteria:</i></p> <ol style="list-style-type: none"> 1. International Convention’s for the Prevention of Pollution from Ships monitoring intensity compliance of the requirements and decreasing number of violations: present value (at 2009) – such control has been carried out by 25% of ships sailed up in the Klaipeda Seaport, 25 violations were identified. Target value (in 2015) – control is going to be carried out by 25% of ships sailed up in the Klaipeda national harbor and no more, than 15 violations are identified. 2. Decreasing number of pollution

	<p>accidents: present value (at 2000-2009) – 391; target value (in 2015) – 125.</p>
<p><i>Tasks:</i></p> <ol style="list-style-type: none"> 1. To ensure, that an economic activities planning (spatial planning) would be favorable for the environment in the Baltic Sea. 2. To ensure the implementation of international requirements to reduce and to eliminate illegal shipping pollution. 3. To improve maritime safety in order to avoid the risk of pollution accidents. 4. To develop an elimination system of pollution accidents in the Baltic Sea. 5. To create legal preconditions to avoid hazardous and disease causing aquatic organisms entering the marine environment through the ship ballast waters. 6. To reduce air pollution from the ships. 7. To ensure, that pollution influence of the offshore platforms and other equipments in the Baltic Sea effect would be minimal for the environment. 	

II. GENERAL REGULATIONS

2. The Baltic Marine Environment Protection Strategy (hereafter – Strategy) implements the basis of the 17 June 2008 Europe Parliament and Council Directive 2008/56/EB, which regulates Community’s actions in the marine political environmental section (Marine Strategy Framework Directive; hereafter – Directive 2008/56/EB), and also is the regulation of the Baltic Sea Action Plan, which was adopted by Helsinki Commission (hereafter – HELCOM) on 15 November 2007 in Krakow in the extraordinary meeting of Ministers of the Environment.

3. Lithuania has approved a number of the policies or strategies to prevent marine environment. National Environment Protection Strategy, confirmed by Parliament of the Republic of Lithuania on 25 September 1996 resolution No I-1550; National Sustainable Development Strategy, confirmed by the Government of the Republic of Lithuania on 11 September 2003 resolution No 1160; Biodiversity Preservation Strategy, confirmed by Ministry of Environment and the Ministry of Agriculture on 21 January 1998 order No 9/27; Drinking Water Supply and Wastewater Treatment 2008-2015 Development Strategy, confirmed by the Government of Lithuania on 27 September 2008 resolution No 832; Long-term (until 2025) Lithuanian Transport System Development Strategy, confirmed by the Government of Lithuania on 23 Jun 2005 resolution No 692; all of them regulate certain regulations due to the environmental protection of the Baltic Sea, but these strategies are meant for the certain sectors, but the common complex policy for the environment protection of the Baltic Sea was missing.

4. Purpose of Strategy – to develop and implement Lithuanian Baltic Sea environment security policy keeping good marine environmental status.

5. Strategy is not adjusted for the activity, which the main purpose is – defense or national security. However, the authorities engaged in such an activity, aim that they, to the extent reasonable and possible, would be reconciled with the Strategy’s purpose.

6. Structure of the Strategy:

6.1. Summary of the Strategy;

6.2. General regulations;

6.3. Baltic Sea environmental analysis;

6.4. Strength, weakness, opportunities and threats (SWOT) analysis;

6.5 Vision;

6.6. The strategic aim, objectives and tasks;

6.7. Implementation of the Strategy pursued by the results (evaluation criteria);

6.8. Strategy implementation and accountability.

7. Terms used in Strategy:

Ecosystem - based approach – the comprehensive integrated management of human activities method, based on the latest available knowledge about the ecosystems and their changes, trying to indentificate them and takes into action to eliminate effect, which endanger well-being of marine ecosystems. Approaches' aims, that the sources and services of the ecosystems would be used sustainably and that the integrity of ecosystems would be maintain.

Eutrophication – is water nutrient pollution (by nitrogen and phosphorus compounds), that stimulates the growth of algae, disturbs the balance of aquatic organisms and degrades the quality of water.

Good marine environmental status – such state, where on normal conditions, the seas waters are clean, healthy, productive, marine ecosystems are used sustainably and the potential for future generations are saved, in addition:

marine ecosystems' structure, functions and relate geomorphological, geographical, geological and climatical factors create conditions to these ecosystems to function properly, support their resistance to environmental changes, affected by human; marine species and habitats are protected, biodiversities' prevention from disappearing, caused by human, is made and different biological components functioning sustainably;

ecosystems' hydro-morphological, physical and chemical features, including the features affected by human activities, support these ecosystems; anthropogenic access of materials and energy into the Baltic Sea, including also noise, does not induce pollution affect.

Exclusive economic zone – the part of the Baltic Sea, situated outside the territorial sea, where the Republic Lithuania has certain sovereign rights, jurisdiction and duties, established by Lithuanian laws and international agreements; and the part, which boundaries with the neighboring states establish Lithuanian international agreements and generally recognized principles and norms of international law.

Sea region – it is Lithuanian internal waters, territorial sea and exclusive economic zone.

Harmful and disease-causing aquatic organisms – such aquatic organisms, which entered the water pool, can endanger environment, human health, wealth and resources, can also harm biodiversity or can disturbed the use of pools in some other way.

Territorial Sea – waterway bar of the Baltic Sea, 12 nautical miles width coast of the Republic of Lithuania, which is integral part of the territory of Lithuania and the boundaries with the neighboring states establish Lithuanian international agreements and generally recognized principles and norms of international law.

Inland waters – the Curonian Lagoon of the Republic of Lithuania and the sea port basin, located in east from the line, connecting the most distant from the sea points of the sea port piers.

8. Other terms, used in the Strategy, are defined in the Republic of Lithuania Marine Environment Protection Law (1992 No 5-27 and 1997 no 108-2731), in the Republic of Lithuania Protected Areas Law (1993 No 63-118, 2001 No 108-3902), in the Republic of Lithuania Water Law (1997 No 104-2615, 2003 No 36-1544).

III: BALTIC SEA ENVIRONMENTAL ANALYSIS

9. It is very important for the Baltic Sea environmental protection close co-operation with all Baltic Sea states that takes place in HELCOM. Considering the poor status of the Baltic Sea ecosystem, on 15th of November 2007 in Krakow, at extraordinary ministerial meeting, was initiated HELCOM's Baltic Sea Action Plan. The plan is intended to address four key Baltic Sea problems: eutrophication,

pollution by hazardous chemical materials, loss of biodiversity, shipping and other activities' impact on the Baltic Sea reducing. These problems are also the most relevant for the sea region.

Eutrophication

10. Eutrophication is caused by increased nutrient (as phosphorus and nitrogen) concentration in the water. About 75% of nitrogen and 95% of phosphorus fall the Baltic Sea with river water or through the direct exhaust. According to HELCOM's data, during 2001-2006 into the sea had had 641,000 tons of total nitrogen and 30,200 tons of total phosphorus (per year). Compared to the years 1995-2000, nitrogen and phosphorus inflow into the Baltic Sea has reduced respectively 13, 7% and 15, 3%. Nearly two-thirds of this variation can be explained by decreased rivers' runoff.

11. 1997-2008 from the territory of Lithuania into the Baltic Sea had got in average 45,627 tones of total nitrogen, 2,198 tons of total phosphorus, biochemical consumption of oxygen, determined in 7 days (BOD7), - 91,360 tons. The results of researches shows, that the inflow of pollutants from rivers into the Baltic Sea has decreased. The amount of nutrient entering the water depends on rivers flow.

12. According to the HELCOM annual reports, values of eutrophication in the Baltic Sea varies greatly. Because of the large fresh-water runoff, in the years 2001-2006 high dissolved inorganic phosphorus winter concentration was in Riga and the Gulf of Finland (respectively 0,024 and 0,026 mg/l) and high dissolved inorganic nitrogen winter values were measured in Bothnia and the Gulf of Finland. Perennial results of research showed, that from the year 1970 to 1980-1990, nutrient's winter and annual concentrations in the Baltic Sea were growing. From the years 1980-1990 in certain parts of the Baltic Sea nutrient's concentrations were stable, decreased or even increased.

13. Sea region significantly depends on the overall state of the Baltic Sea, but the northern part is also affected by the water flows of the Curonian lagoon, which are 3-5 times more enriched by nutrient then marine water. Amount of nitrogen and phosphorus got into the Baltic Sea varies from year to year; its concentration depends not only on the general level of pollution, but also on meteorological conditions. Further from the coast the concentration of nutrient is lower.

14. 1997-2008 studies have showed that in winter amount of total nitrogen and total phosphorus in marine region decreases. The average nitrate nitrogen concentration in winter 2008 in the territorial sea and exclusive economic zone water was respectively 0, 25 and 0, 05 mg/l and did not exceed the largest allowable concentration (2, 26 mg/l). The average multi-nitrate nitrogen winter concentration in the territorial sea and exclusive economic zone water – respectively about 0, 22 mg/l and 0,074 mg/l. Phosphorus compounds' concentration is almost constant or varies little. The average phosphate phosphorus (PO₄-P) concentration in winter 2008 in the marine region was about 0,024 mg/l and did not exceed the largest allowable concentration (0,065 mg/l). The average multi-phosphate phosphorus winter concentration in the marine region is about 0,018 mg/l.

15. Water transparency depends from the quantity of organic and mineral materials suspended in the water. Water transparency differs from different parts of water: the most transparent water is in Arkona's basin part, Kattegate; the cloudiest water is in the Baltic Sea bay. In summer 2001-2006 water transparency varied from 1, 8 to 9, 1 meter. In summer 1997-2008 the average water transparency of Lithuania territorial sea was about 4, 3 meter, of exclusive economic zone – 5, 6 meter. Larger parameter change in water transparency is not a trend.

16. Usually in the Baltic Sea emergence or spread of the oxygen free zones depend from deep water exchange with the North Sea and surface water layers. However, this problem was increased by eutrophication. Oxygen is necessary to brake down a high quantity of organic materials settled in the bottom. According to HELCOM, in the basin of Arkona, Finland and the Riga Gulf, and also in the other parts, occurs seasonal lack of oxygen; and in the deeper Bornholm, the eastern and west of Gotland and in other places – a permanent lack of oxygen (oxygen concentration < 2mg/l).

17. Coastal waters of the permanent winds, waves and currents create hydrodynamic environment, so there is no the lack of oxygen and sharp vertical gradient of oxygen. Since the year 2002, the lack of oxygen was constant (< 2 mg/l) in the furthest part of the sea, at 80-117 meters deep layer. In summer 2006, after the inflow of fresh water (salinity increased 1 ‰), the oxygen conditions improved in the demersal layer (oxygen concentration – 4, 9 mg/l). However, in winter and summer 2007-2008 the furthest sea areas, around the status monitoring sites for demersal layer, again lacked oxygen. At this point the phosphate-phosphorus concentration in the demersal layer (100-117 meters) is usually the largest (the average annual concentration in 1997-2008 was 0, 15 mg/l in the demersal, and in the same place, but on surface – 0,027 mg/l). This indicates, that phosphorus accumulated in the bottom sediments of Gotland region, gets back into the demersal layer after the shortage of oxygen and because of stratification (vertical stratification) the water do not mix and salinity levels below the spike layer increases.

18. Phytoplankton – one of the most important components of aquatic ecosystems. Its development intensity leads to the water quality and the water productivity. In addition, phytoplankton – a perfect indicator, since one or another type of algae spread shows certain complex set formed in the water and its pollution degree. Intensive phytoplankton development, most often cyan bacteria (class Cyanophyceae), affects water blooming almost in all Baltic Sea, mostly in the coast, especially in the bays, estuaries and areas located close to pollution sources. Satellite imagery indicates, that cyan bacteria and green algae in the summer can bloom up to 60 000 square meters of the Baltic Sea. Cyan bacteria in summer in the marine area can make more then 50% total phytoplankton biomass. Necessary for the development nitrogen, cyan bacteria can take also from atmosphere, and having remote precedence over any other kind, when this combination is missing in the water. This phenomenon is important to note in the status of water management processes.

19. In 2008 in the coastal waters phytoplankton abundance was almost the same as multi-abundance of algae, and marine phytoplankton abundance (about 2, 3 million units per liter of water) – 1, 7 times higher then the average from the period of research surveys in 1984-2007 (about 1, 3 million units per liter of water). More mean summer phytoplankton biomass change patterns in 2001-2008 was not available, the average summer phytoplankton biomass during this period of the territorial sea and exclusive economic zone water varied from 0,4 to 6,5 mg/l (the mean biomass in the territorial sea was in 2008 about 2,9 mg/l, in the exclusive economic zone – about 0,96 mg/l). From the phytoplankton biomass and its production can be inferred the amount of chlorophyll a. High chlorophyll a concentrations in water points to a very intense photosynthetic processes. According to the HELCOM reports, Baltic Sea chlorophyll-a concentration from year 1970-1980 to 1981-1990 increased, then remained stable, decreased or as in the northern part of the Central Baltic, in the Gulf of Riga and elsewhere, began to grow again. The average summer chlorophyll a concentration in 1997-2008 in the territorial sea and exclusive economic zone water was respectively 6, 7 and 3, 7 $\mu\text{g/l}$. According to a stronger long-term data of chlorophyll a concentration trends do not change.

20. Marine phytoplankton communities found in the area and potentially toxic algae species: *Aphanizomenon* spp. nodular spp. cyan bacteria of the genus, invasive dinoflagellate type of *Prorocentrum minimum*. While in 2008 these algae were not abundant, but in some study month of the year, they can cause water blooming. According to HELCOM data, the most because of *Nodularia* spp. cyan bacteria water of the Baltic Sea was blooming during the years 1994, 2001, 2003 and 2004.

21. The survey data show some positive developments in the Baltic Sea, which may be associated with the ongoing water quality improvement measures. However, it should be noted that the Baltic Sea ecosystem is inertial and the Baltic Sea environmental measures for improvement can last for decades.

Hazardous substances

22. Naturally in the environment existing contaminants can be found from the Baltic Sea – heavy metals and synthetic, for example, polychlorinated biphenyls (PCBs), DDT and its metabolites, dioxins, tributyltin compounds (TBA), nonylphenol, octylphenol, and many others. Contaminants found in a variety of environments – in water, sediments, biota. Into the Baltic Sea they can get with the river flows, from the atmosphere, during the accidents in the sea or otherwise. According to HELCOM data, some heavy metals decreased in the last 20-30 years. In 1994-2006 was felt decrease of heavy metals (especially cadmium and lead), many of them came from the Baltic Sea countries with the river water. Cities in 1990-2007 reduced the access of heavy metals into the atmosphere; pollution of the Baltic Sea with cadmium (up to 46 per cent), mercury (up to 23 percent) and lead (up to 69 percent) decreased. HELCOM report states that lead, polychlorinated biphenyl concentrations in the fishes decreased, but in some parts of the Baltic Sea (Central Baltic Sea, Gulf of Finland) in 2002-2008 their concentration in caught fishes is higher, then those caught from the Skagerrak. Despite the methods to reduce the pollutants entrance into the environment, in the herring of Baltic Sea cadmium is founded almost the same amount then in year 1980.

23. Information about the concentration of synthetic pollutants (for ex., octylphenol, nonylphenol and other), found from the marine environment, is not much. The results of projects carried out by the HELCOM shows that the most pressing marine environmental pollutants, which are listed in the HELCOM Baltic Sea Action Plan, are found in seawater and fishes (nonylphenol, endosulfan, and others).

24. The highest content of polluting materials, often exceeding the largest allowable concentration, normally accumulates in the anthropogenic impact areas of the marine region: in the ports dredged material disposal at sea area, in the Curonian Lagoon near Nida, in the Klaipeda Channel at the port gate, in the Timber Cove at the wastewater farewell, which is also dominated by fine-grained sediment fractions, well-absorbing pollutants. Pollution of the marine area due to the economic activity in the water body (sea transport, port dredged disposal, etc.) comes with river water and the atmosphere. Research results show, that the most sea region is polluted by petroleum hydrocarbons, heavy metals (for ex., zinc, cadmium), tributyltin compounds, dioxins, furans, phthalates.

25. Research shows that the average annual oil hydrocarbon concentration in the water is close to the largest allowable concentration or above. The largest allowable concentration level exceeding concentration often found in the Butinge oil terminal area, in the ports dredged material disposal at sea area, in the Klaipeda Strait, in the northern part of the lagoon, episodically – in the other parts of researched marine region. According to in 2005-2007 carried out studies, the concentration of petroleum hydrocarbons in the Klaipeda Strait water exceeded the largest allowable level by 25%, in the Curonian Lagoon – 22%, in the territorial sea – 12%, in the exclusive economic zone – 28%. This leads to intense shipping, illegally discard oil (oily water) incidents and other.

26. Since 2006, investigations off the polycyclic aromatic hydrocarbons (PAH) were started in the sea area. Mostly of these compounds is polluted the bottoms of Curonian Lagoon central part and the Klaipeda Strait near the Timber Cove, as well as the bottom of lagoon near Nida. PAH gets into environment with the other materials from the different sources. Fabricated metal products, wood impregnation, petroleum refining and urban storm water collectors - the most important sources of PAH entering the sea environment. And other important supplies - shipping and other activity related to oil transportation.

27. Increased heavy metals (copper, lead, cadmium, chromium, zinc) concentrations in the Klaipeda Strait, particularly near the Timber Cove, in the Curonian Lagoon water near Nida and in

the bottom sediments, in the lagoon water spread area of the Baltic Sea and in the ports dredged disposal at sea area.

28. Of all the HELCOM Baltic Sea Action Plan following sea polluting materials, the most relevant for the marine area are tributyltin compounds (TBA), which accumulates in the bottom sediments because of the hydrophobic feature of these compounds, in the water they stick firmly to the solid particles. For a long time the TBA were used in paint for ship hulls, intended to avoid overgrow with the organisms. Although the use of these compounds for this purpose is prohibited (in European Union since 2003), but they are still washing-off from the previously with such paint painted ship hulls. TBA in the environment, splits first into dibutyltin and later into monobutyltin compounds. While implementing the project "Screening of Dangerous Substances in the Aquatic Environment of Lithuania" (in 200-2007), TBA were explored in the Area of Klaipeda State Sea Port. The results showed, that this compound's concentration in water was nearly 10 times larger than the largest permissible concentration ($0.001\mu\text{g/l}$) and it was $0.011 - 0.012\mu\text{g/l}$. Klaipeda Strait seabed sediment concentration was $12.8 - 68.5\mu\text{g/kg}$ dry weight (d.w.), near Klaipeda State Seaport gate - $35, 8\mu\text{g/kg}$ d.w., Timber Cove - even $1\,920 - 2\,400\mu\text{g/kg}$ d.w.

29. August 2008 survey results show that the largest concentration of TBA determined in the Klaipeda Strait near the Log bay ($57\mu\text{g/kg}$ d.w.), in the Klaipeda State Sea Port entrance channel ($8,8\mu\text{g/kg}$ d.w.), in the sediments near the Timber Cove ($57\mu\text{g/kg}$ d.w.), in the port dredged material disposal at sea area ($2,3\mu\text{g/kg}$ d.w.); concentration in the Curonian Lagoon water spread sea zone and in the southern parts of the territorial sea environmental monitoring sites did not exceed identified level ($1,0\mu\text{g/kg}$ d.w.). However, the previous studies (in 2005) determined large TBA concentration ($807.4\mu\text{g/kg}$ d.w.) found at the sea. Such concentrations of TBA distribution in the study sites shows, that many compounds of TBA accumulates not only technogenic zone, but in the other accumulative places, where predominate fine-grained bottom sediments.

30. Other relevant emitting materials - polychlorinated dibenzo-p-dioxins (PCDDs) polychlorinated dibenzofurans (PCDF), polychlorinated biphenyls (PCBs). They are persistent chemical compounds, found in the natural environment. Dioxins and polychlorinated biphenyls have a combination of toxicity and may have a negative impact on people's health. The largest total dioxin and furan concentration found in 2008 in the ports dredged material disposal at the sea area, but the most toxic dioxin and furan compounds found in the exclusive economic zone of environmental monitoring station in the bottom sediments. The major share of total dioxin-like PCBs, concentration and it's the most toxic compounds found in the Curonian Lagoon at Timber Cove.

31. The results of the project "Screening of Dangerous Substances in the Aquatic Environment of Lithuania", in 2007 showed, that in the environment of the Klaipeda State Sea Port Area there are large concentrations of new generation pollutants, such as phthalate (DEHP). DEHP concentrations in Klaipeda State Sea Port Area (Timber Bay - 0.13 to $0.81\mu\text{g/l}$, at the gate - $0.82\mu\text{g/l}$, at the "Klaipeda cardboard" - $0.23 - 1.27\mu\text{g/l}$) all exceeded the MRL ($0.1\mu\text{g/l}$).

32. For pollution evaluation of sediments and biota, as an environmental component, the environment quality standards do not exist. Sometimes the sediment pollution assessment taking into account by supplied chemical materials, their concentration, indicating the different soil pollution classes under the Environment of the Republic of Lithuania normative document LAND 46-2002 "Excavating soil and sea ports and marine dredged material management rules" approved by the Minister of Environment in 2002, 26 February Order No. 77 (Official Gazette, 2002, No. 27 - 976) 33. Performing The Nordic Council of Ministers and the HELCOM project "Hazardous research materials are spread in the eastern Baltic Sea (HELCOM Screening), a study carried out of 8 hazardous substances or their groups (appointed in HELCOM's Baltic Sea Action Plan as most urgent) spread in the eastern part of Baltic Sea (in waters of Poland, Lithuania, Latvia, Estonia and Russia). From eight of materials groups tested in the fishes (herrings, basses,

flounder) were found six materials or their groups (organic tin compounds, polybrominated diphenyl ethers, brominated diphenyl ethers, nonylphenol, endosulfan (endosulfan sulfate) perfluorinated compounds, chlorinated paraffin). Some of these materials investigated for the first time, so to assess the evaluation for environmental pollution of these substances, additional studies are needed.

Biodiversity and protected areas

34. Baltic Sea - a unique and fragile ecosystem, with a rich variety of rare species and habitats, which are important to the global level. However, from the middle of twentieth century the Baltic Sea ecosystem starts changing drastically because of climate change, eutrophication, and spread of new alien species. The lack of oxygen in the lower layers of the Baltic Sea creates zones, where certain species of animals and plants are disappearing. Too intensive humans' activities (especially the coastal construction in the water and sea bottom) cause the artificial barriers for the migrating fishes. Very active commercial fishing in the Baltic Sea is detrimental for the species biodiversity. Such fishing nets not only affect fish stocks, but also lead to high mortality of wintering birds. Standing constantly on the biological resources and environmental pollution, biodiversity decreases, undermines the whole ecosystem's stability and resilience. A risk poses to the Baltic Sea threatens the marine environment.

35. Lithuania creates an ecological network "Natura 2000" of special protected areas, composed of territories with the 1992 May 21 Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (OJ 2004 Special Edition, Chapter 15, volume 2, p. 102) as amended by 2006 20 November Council Directive No 2006/105/EEB (OJ 2006 L 363, p. 368) (hereinafter - Habitats Directive), included in Annex I natural habitat types listed in Annex II species habitat and special protection areas classified under the 1979 April 2, Council directive No 79/409/EEB of wild birds (OJ 2004, Special Edition, Chapter 15, volume 1, p. 166) (hereinafter - the Birds Directive) (IBA areas). Those network areas are established also on the territory of Lithuania's Baltic Sea coast – a broad part of the Curonian Spit National Park (established 1991) announced as important area for the birds protection. This bird-protected area IBA includes all the Baltic Sea coastal waters protected in this national park. It was found, that this area is important to protect breeding sea eagles (*Haliaeetus albicilla*), woodlarks (*Lullula arborea*) pipits (*Anthus campestris*), migrating little gulls (*Larus minutus*), river gulls (*Sterna hirundo*) in its accumulations' sites in the Curonian Lagoon and the Baltic Sea, wintering velvet scoter (*Melanitta fusca*) and razorbills (*Alca Tord*) in its accumulations' sites in the Baltic Sea; it is also migratory birds' flow convergence space. Implementing 2005-2009 European Union financial instrument for the environment (LIFE + project), carried out studies of biodiversity in the territorial sea have shown, that area, important for the wintering waterfowl birds, should extend much further from the shore to the sea, than the present to the Curonian Spit National Park perimeter coinciding IBA.

36. The Curonian Spit's protection of habitats important sites coincides with the external Curonian Spit National Park boundaries. Those areas in the marine waters can be found from Habitats Directive Annex II of the shad (*Alosa fallax*).

37. In the northern sea area found and Europe-wide protected habitat (listed in the Habitats Directive Annex I) - reefs (1 170).

38. In the northern sea area IBA, called Baltic Sea coast, occupies part of the Seaside Regional Park (established in 1992) – talasological reserve of the Karkle – and covers talasological reserve of the Baltic Sea (established in 2005). It was found, that this area is important for protection of wintering and accumulation of migratory areas of Siberian eider (*Polysticta stelleri*), goldeneyes (*Bucephala clangula*), mergansers (*Mergus merganser*) and little gulls (*Larus minutus*).

39. The European Union's Biodiversity Action Plan (European Commission Communication COM (2006) 216 final) for the implementation of the Birds Directive and Habitats Directive,

proclaim, that Member States of the “Natura 2000” have to complete the establishment of the sea sites in 2012. Biodiversity Action Plan as well as the Natura 2000 provides sites development not only in the territorial sea, but also in the exclusive economic zone.

40. Biodiversity’s protection in the Baltic Sea inadequate – non-inventoried biodiversity, non-mapped habitats of the Baltic Sea, home location of species, non-distinguished zones of different regime in marine area.

41. Based on long- researches data of Vilnius University Institute of Ecology and in 2005 – 2009 “LIFE Nature” program of project “Marine Protected Areas in the Eastern Baltic” data, a new protected area is provided to establish in the territorial sea and give it the status of important bird protection area; as well as to prepare management plans of marine protected areas in the territorial sea.

42. So far, surveys of biodiversity inventory were not executed in the exclusive economic zone, but constant monitoring of the fishes were performed in accordance with default settings, which are intended to monitor the state of environment. Thus, network expansion of the “Natura 2000” in the sea region, as the European Union's Biodiversity Action Plan sais, is not possible due to lack of area selection and set up the necessary data on wildlife values.

Navigation

43. Shipping in the Baltic Sea is about 15 percent of world maritime traffic. Maritime transport (ships and ports) affects all components of the marine environment: water, bottom, side, air, wildlife. Shipping in the Baltic Sea increases every year. In the Baltic Sea regularly ply about 2 000 ships, of which 46% - cargo ships, 14% - oil tankers and 11% - passenger ships (in 2008). Cargo carrying ships are growing.

44. The main risk of pollution caused by shipping: operating pollution, illegal intentional and accidental oil, other hazardous substances and waste discharges, hazardous and disease causing water organisms access with ballast waters. The negative impact for Baltic Sea state have fishermen’s’ floating and drowned lost nets, rubbish, extracted with fish nets and then discharged into the sea.

45. According to the 1973 International Convention for the Prevention of Pollution from Ships, as amended revised 1978 Protocol (hereinafter - the MARPOL 73/78) (Official Gazette, 2004, no. 138-5030), The Baltic Sea - a special area, where is forbidden almost all contaminants, arising from the operation of the ship and cargo residues, released into the sea, they must be put into port reception facilities. Exception is currently made for the ship effluent, which can be poured into the sea at 12 nautical miles distance from the coast. As the ship's wastewater is rich in phosphorus and nitrogen, some of the vessels (for example, cruise, carrying several thousand passengers), form so much wastewater as a small town. To have seen the effects of eutrophication, it is necessary to seek on the international level all together with the other Baltic Sea states, that the Baltic Sea became a special area, where is forbidden to discharge wastewater from the all cruise ships. It is imperative, that the Lithuanian ports install or upgrade their ship waste reception facilities.

46. NO_x and SO_x, entering the atmosphere from the ships, are increasing in the Baltic Sea, predicted, that by 2020 NO_x increases by two-thirds and SO_x - almost twice. The growth increases even after the implementation of international law acts regulations (MARPOL 73/78 Convention Annex VI), associated with air pollution boarding of ships. NO_x gets in the atmosphere from the vessels with the diesel engines, and SO_x - burning sulfur fuel and heating oil. Forecasted, that these compounds get more in the atmosphere from the vessels, than from the land-based sources of all 25 countries of EU. Access, within about 5 percent of the total atmospheric nitrogen from the ships, entering the Baltic ecosystem, leads to the marine eutrophication problem.

47. According to MARPOL 73/78 Annex VI regulations, Baltic Sea – emissions of sulfur oxide from ships control area, showed a maximum content of any sulfur fuel can be used in ships in the Baltic Sea. While MARPOL 73/78 provides, that it may be attributable to nitric oxide pollution from ships control areas, the Baltic Sea is not assigned to those areas. So while, it is important with other Baltic Sea states to seek, that the Baltic Sea to be placed in these areas.

48. About 10 percent of the total hydrocarbons in the Baltic Sea are unauthorized emissions from ships. According to HELCOM, in recent years observations from the air are recorded fewer of these malicious actions. However, this trend can not be applied to the sea area, because the air observations in Lithuania can be preceded outside the requirements and without the special equipment.

49. Annually on average about 120 accidents occur in the Baltic Sea. In 2000-2007 about 7 percent of all maritime accidents consisted of accidents, in which marine environment was polluted. Forecasted, that by 2015, oil will be transported approximately 40 percent more (in 2007 were transported 170 million tones of oil).

50. Since a year of 1999, 312 reports were confirmed of the marine pollution in the sea area. 2004 - 2008 data suggests that mostly, even 85 percent, pollution cases were found in Klaipeda Sea Port, nearly 13 percent – in the other marine district. Klaipeda Sea Port water area is most polluted during the cold season, when weather is turbulent. Limited fishing during the summer, calm sea, so that oil or other hazardous materials are emitted frequency. Accidents most often the result of pilot error and technical condition of the ship: ships drift on shallow or thrown on the port piers, crashes with another vessel, there are fires, explosions, violated another vessel constructions, a casualty suffered vessel hails at the port for repair, such a ship discharges petroleum products, the same products can get into the sea while filling-up vessels' bunkers, oily waters are pumped from ships. Sometimes petroleum products are discharge into land from unidentified sources. This is former pollution of oil products incidents, ship accidents, and intentional release from unidentified passing vessels result. The analysis of pollution cases in 2004-2008, suggests, that their number do not change significantly and consist of average about 18 to 19 pollution incidents during the year, and the reports about the pollution reduce.

51. Butinge petroleum terminal design handling technical capacity - up to 14 million. tones oil per year. Over 10 years of operation of the terminal, seven incidents occurred, during the five incidents oil entered into the marine environment. Incidents' reasons: technical failures, people's mistakes. Totally, during 10 years, about 60 tons of oil were spilled, collected - about 10 tons.

52. The mostly disease-causing and harmful aquatic organisms come from ships into the marine environment. Alien species, came into the Baltic Sea with ballast waters and sediments, can even more interfere the balance of already so threatened natural ecosystems. The access of alien species in the seas, as well as in the Baltic Sea, has increased. The International Convention on Ships' Ballast Water and Sediments Management, entered into force in 2004, helps to combat harmful aquatic organisms and pathogens. In Europe there are found 10 822 alien species, and it is expected, that 10-15 percent of them will have a negative economic or ecological impact. In the Baltic Sea were found more than 120 alien species. Lithuania has registered 669 alien species, of which at least 18 – in the territorial sea and 29 – in the intermediate water (the Curonian Lagoon). Of these, 25 species have established stable populations, 14 dominate in local communities, and at least 4 may affect water quality. Worldwide are known cases, in which invasive species due to changes in the whole ecosystem (for example, *Mnemiopsis leidyi* in the Black Sea). According to preliminary estimates in 2008, annual costs related to invasive species in Europe - from 9 600 to 12 700 million Euro. This is just the estimated costs, because in many countries, these costs and the effect just started to be registered and counted, so actually, the costs can be much larger.

53. In order to minimize as much as possible the pollution risk arising in the sea from shipping, Lithuania is ratified the main International Maritime Organization's (hereinafter - IMO) conventions, which goal – to reduce marine pollution from ships - in 1973 International

Convention for the Prevention of Pollution from Ships, as amended in 1978 thereto (MARPOL 73/78), 1997 Protocol, amending the 1973 International Convention for the Prevention of Pollution from Ships, (MARPOL PROT 1997) (Official Gazette, 2005, No 74-2678) , 1990 International Convention on Oil Pollution Preparedness, Responses and Cooperation (Official Gazette, 2002, No. 115-5135), 2001 The International Convention on the board of Harmful Anti-Fouling Systems Control (AFS) (Official Gazette, 2006, no. 121-4588). The implementation success of these conventions depends on the effective cooperation between competent authorities operating in Lithuania and responsible for preventing pollution from ships, therefore such cooperation must be enhanced. That an independent evaluation of these conventions implementation would be done, Lithuania must become IMO member of approved voluntary audit Scheme (A.974 (24)).

54. In order even more to reduce risk on the marine environment affected by ships, Lithuania should determine, whether appropriate to ratify other IMO conventions, which goal – to reduce marine environmental pollution from vessels, i.e. 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION 1969) and its 1973 year Protocol (INTERVENTION PROT 1973), 1972 London Convention on Marine Pollution and Waste Emissions of Other Material (LC 1972), 2004 International Convention on the Board Ballast Water and Sediments Management and Control (BWM), 2009 International Convention for the Safe and Environmentally Sound Recycling of Ships (SRC 2009).

IV. STRENGTHS, WEAKNESS, OPPORTUNITIES and THRETS (SWOT) ANALYSIS

55. Strengths:

55.1. Protection of the Marine Environment of the Republic of Lithuania Law legislation and international treaties;

55.2. Compliance with European Union requirements helps to reduce pollutants' access into the Baltic Sea and to preserve biodiversity;

55.3. Acting in close cooperation with other Baltic Sea countries on the marine environment protection issues;

55.4. Decreased trends of some eutrophication indicators values are apparent in the sea region;

55.5. Part of the coastal waters is included to the protected areas.

56. Weaknesses:

56.1. Applicable requirements of the legislations are insufficient in order to achieve or maintain the good environmental status of Baltic Sea;

56.2. Requirements and measures are just for certain sectors, marine environment not managed under the ecosystem-based approach;

56.3. The sea area is polluted by hazardous chemicals materials; the information about the spread of hazardous chemical substances in the environment and their sources is missing;

56.4. Nutrient inflow into the Baltic Sea recently reduces, but still too much of them, eutrophication affects it;

56.5. The information about the spread of the natural values in the exclusive economic zone is missing; their studies are very long and expensive;

56.6. Implementation of ecological network "Natura 2000" in the territorial sea and exclusive economic zone is not finished;

56.7. There is no clear: identification of pollution incidents and the investigation, which are executed by the Environmental Protection State enforcement officers, and regulatory procedures;

56.8. Not enough are coordinated the authorities, responsible for ships monitoring, that pose risks to marine environment, for ship acceptance in to harbor places; co-operation;

56.9. Municipalities do not properly ensure wastewater infrastructure development in the towns and villages, that, since 2015 1 January, 95 percent of the local population are supplied with the waste management services, which satisfy requirements of environment protection.

57. Opportunities:

57.1. European Union financial support's use to implement the marine environment protection related measures;

57.2. Usage of the HELCOM and other Baltic Sea cities best practices to address the environmental issues of the sea region;

57.3. Implementation of Directive 2008/56/EC will contribute to the good environmental status of the Baltic Sea and will help to manage sea environmental protection under an ecosystem-based approach;

57.4. Implementation of European Union Baltic Sea Strategy, approved by the Commission Communication in 2009 October 29-30 in European Leader Council, will help to address eutrophication, pollution by hazardous materials, biodiversity and pollution from ships problems;

57.5. The use of IMO technical assistance to individuals, working in the institutions responsible for the marine environment protection, preventing pollution from ships, skills development;

57.6. preparing to participate in voluntary IMO Member Audit Scheme (A.974 (24), Lithuania will be able to carry out the IMO Conventions', which aim – to reduce the marine environment pollution from ships, requirements;

57.7. 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION 1969), 1972 London Convention on the Sea Pollution Emissions, Waste and Other Material (LC 1972), 2004 International Convention on Ships' Ballast Water and Sediments Management and Control (BWM), 2009 International Convention for the Safe and Environmentally Sound Ship Processing (SRC 2009) ratification would help to seek for a better situation in the Baltic Sea environment and to reduce the risk of pollution from ships.

58. Threats:

58.1. Baltic Sea - an inertia ecosystem, slowly reacting into applied environmental measures, which may take a long time before results are evident;

58.2. Intensifying shipping, transportation of oil and other hazardous materials are to adversely affect the marine environment;

58.3. Backlog of risk assessment of marine pollution incidents in the sea area, and national pollution incidents removal capabilities may be insufficient for the eradication of pollution incidents properly;

58.4. Project "Nord Stream" and Baltic Sea oil platforms negatively affect the Baltic Sea environmental state;

58.5. European Union environmental requirements are not adjusted in Russia and Belarus, inefficient HELCOM's requirements of implementation assurance mechanism, which must be followed by Russia, the pollution of the Nemunas river basin and the Baltic Sea from Russia and Belarus may be accentuated not enough.

V. VISION

59. Good condition of marine environment - a state, where on normal conditions, the seas waters are clean, healthy, productive, marine ecosystems are used sustainably and the potential for future generations are preserved, in addition:

59.1. marine ecosystems' structure, functions and relate geomorphological, geographical, geological and climatical factors create conditions to these ecosystems to function properly, support their resistance to environmental changes, affected by human; marine species and habitats

are protected, biodiversities' prevention from disappearing, caused by human, is made and different biological components functioning sustainably;

59.2. Ecosystems' hydro-morphological, physical and chemical features, including feature affected by human activities, support these ecosystems; anthropogenic access of materials and energy into the Baltic Sea, including also noise, does not induce pollution affect.

VI. THE STRATEGIC AIM, OBJECTIVES AND TASKS

60. Strategic aim - to achieve and (or) maintain the good environmental state of Baltic Sea by the year 2020:

60.1. To protect and preserve marine environment, do not allow deteriorating its condition, and, if possible, to restore areas of marine ecosystems, in which this environment is affected negatively.

60.2. to prevent pollution access into the marine environment or to reduce it, which would guarantee, that marine biodiversity and ecosystems, human health or illegitimate exercise of marine environment would not effect harm or high-risk.

61. Objectives and tasks:

61.1. the first objective - is to achieve, that the marine environment protection management should be applied on the ecosystems-based approach, ensuring, that the impact of human would not disturb to achieve or to maintain the good status of the marine environment quality, and, where would not be made harm for the capacity of marine ecosystems to react into changes affected by people. At the same time, creating conditions for the current and future generations could use marine resources sustainably;

61.2. Task for the first objective:

61.2.1. to improve management of marine environmental protection in the application of ecosystem-based approach;

61.2.2. act in more close cooperation with other Baltic Sea Region countries concerning environmental protection issues of the Baltic Sea.

61.3. the second objective – to reduce nutrient inputs into Baltic Sea by the year 2016 (compared with 1997-2003): nitrogen – up to 11 750 tons, phosphorus – up to 880 tons, and to seek, that eutrophication, affected by human, does not reduce in the Baltic Sea and cause the negative impact for the environment;

61.4. tasks for the second objective:

61.4.1. to ensure, that from all cities' wastewater treatment plants, directly or indirectly discharged sewage into the marine environment, would be removed:

total phosphorus – no less then 90%;

total nitrogen – no less then 75%.

61.4.1. to increase accessibility of wastewater treatment services and to improve their quality;

61.4.2. to reduce the pollution from the agricultural sources;

61.4.3. to determine restriction of phosphates in detergents;

61.5. the third objective – to seek, that the concentration of hazardous chemical substances in the Baltic Sea does not induce pollution and negative changes of ecosystem.

61.6. tasks for the third objective:

61.6.1. to identify hazardous substances and their sources in the marine environment;

61.6.2. to decrease and, if necessary, limit or forbid access of hazardous substances into the Baltic Sea;

61.7. the fourth objective – to achieve appropriate preservation level of Baltic Sea biodiversity;

61.8. tasks for the fourth objective:

- 61.8.1. to ensure sustainable functioning of the marine ecosystems, the habitat and species distribution, abundance and quality in line with the prevailing hydrological, geographical and climate conditions;
- 61.8.2. save to a more natural marine and coastal landscape;
- 61.8.3. to ensure, that the populations of fishes, used for the commercial purpose, do not exceed the safe biological limits, does not entail loss of biodiversity;
- 61.9. the fifth objective – to seek, that navigation or other economic activities in the Baltic Sea are executed in the favorable way for the environment;
- 61.10. tasks for the fifth objective:
- 61.10.1. to ensure that an economic activities' planning (spatial planning) would be friendly for the Baltic Sea environment.
- 61.10.2. to ensure the implementation of international requirements to reduce and to eliminate illegal shipping pollution;
- 61.10.3. to improve maritime safety in order to avoid the risk of pollution accidents;
- 61.10.4. to develop an elimination system of pollution accidents in the Baltic Sea.
- 61.10.5. to create legal preconditions to avoid hazardous and disease-causing aquatic organisms entering the marine environment through ballast waters of the ships.
- 61.10.6. to reduce air pollution from the ships.
- 61.10.7. to ensure, that pollution influence of the offshore platforms and other equipments in the Baltic Sea effect would be minimal for the environment.

VII. IMPLEMENTATION OF THE STRATEGY PURSUED BY THE RESULTS (EVALUATION CRITERIA)

62. Established evaluation criteria for monitoring of the implementation of the strategy, linked to the objectives and tasks, allows the evaluation of made progress:
- 62.1. prepared and confirmed the law acts of upgrading marine environment protection and management in accordance with ecosystems-based approach:
present value (at 2009) – 0 acts;
target value (in 2015) – 7 acts.
- 62.2. Decrease nutrient inputs into the Baltic Sea:
present value (at 1997-2008): of nitrogen – 45 627 tons, of phosphorus – 2 198 tons; target value (in 2015): nitrogen – 35 456, 2 tons, phosphorus – 1 492, 4 tons;
- 62.3. Level of sewage, discharged directly or indirectly into the Baltic Sea, treatment increases among all wastewater treatment plants in cities:
present value (at 2007): of total phosphorus – 86, 4%, of total nitrogen – 73, 2%; target value (in 2015): total phosphorus – no less then 90%, total nitrogen – no less then 75%;
- 62.4. Availability of wastewater management services for inhabitants increases:
present value (at 2008) – 63% of country inhabitants had it; target value (in 2015) – no less then 95% of country inhabitants have it;
- 62.5. concentration of hazardous chemical substances in the marine environment would not exceed the established environmental standards:
present value (at 2001-2008) - hazardous substances, studied from the water, exceeded 17% of maximum allowed concentration; target value (in 2015) – hazardous substances, studied from the Baltic Sea district would not exceed the maximum allowed concentration;
- 62.6. enlargement of the most important protective territories in the marine district by the Europe Union (“Natura 2000”):
present value (at 2009) – about 4, 5 % of sea area; target value (in 2015) – about 9% of sea area;

62.7. International Convention's for the Prevention of Pollution from Ships monitoring intensity compliance of the requirements and decreasing number of violations:

present value (at 2009) – such control has been carried out by 25% of ships sailed up in the Klaipeda Seaport, 25 violations were identified; target value (in 2015) – control is going to be carried out by 25% of ships sailed up in the Klaipeda national harbor and no more, then 15 violations are identified;

62.8. Decreasing number of pollution accidents:

present value (at 2000-2009) – 391; target value (in 2015) – 125.

VIII. STRATEGY IMPLEMENTATION AND ACCOUNTABILITY

63. Ministry of Environment draws up a Strategy in 2015 and its implementation in 2016 - 2020 action plans' amendment project.

64. Ministry of Environment prepares annually and submits by 1st of March for the Government of the Republic of Lithuania a report about Strategy's implementation.

65. Performers, which are in charge of the Strategy's implementation, each year, by 1st of February, provide the Ministry of Environment with information about the Strategy's implementation measures.

66. The strategy is implementing by general appropriations, approved to appropriations' administrators from the budget of the Republic of Lithuania. For the implementation of the Strategy can also be used municipality funds and the European Union structural foundation funds.