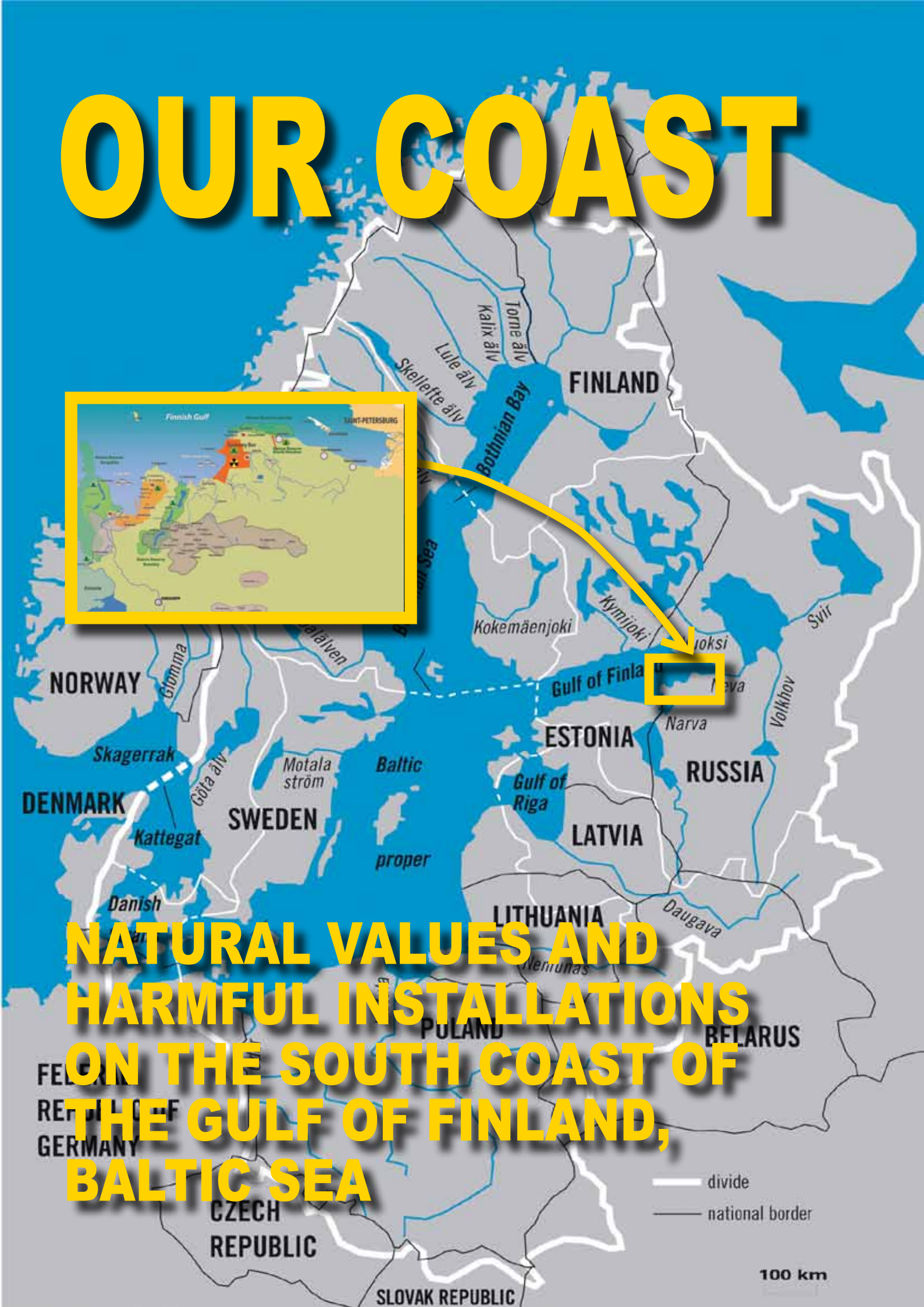


# OUR COAST



**NATURAL VALUES AND  
HARMFUL INSTALLATIONS  
ON THE SOUTH COAST OF  
THE GULF OF FINLAND,  
BALTIC SEA**



— divide  
— national border

100 km

## Major Values of the South Coast of the Gulf of Finland

### TO THE READER!

We live on the South Coast of the Gulf of Finland where we observe large-scale changes happening that are able to transform the habitat radically within the life of just one generation. The construction of ports for export of non-renewable mineral resources - oil, gas, coal – destroys the reproduction of renewable resources: fish, forest and its natural products...

The construction of the new power plant creates opportunities for the development of energy-intensive and environmentally unclean production facilities in the region.

The availability of ports and the nuclear power plant stimulates business offers for importing raw materials that after processing with the use of nuclear power will be exported to the world markets as clean products. With all this our coast becomes a transport corridor and a dump site for unclean technology and wastes.

We are describing about the Habitat Values and the threats that might destroy them.

We need to learn how to act effectively in order to confront in a respectful way all challenges the life brings. We can do it! With this aim in view we need to know what is happening around us and what possibilities exist in order to protect the values we possess.

Green World

**The South Coast of the Gulf of Finland (SCGF)** area is the source of renewable (inexhaustible!) resources and a life style in balance with nature.

This is a national asset of Russia.

Koporskaya Bay and Luga Bay are spawning areas of Baltic herring, the main commercial fish species in the eastern part of the Baltic Sea. In the rivers Luga, Khabolovka, Sista, Voronka, Kovash other types of game-fish spawn: smelt, lamprey and the endangered Baltic salmon.



The indigenous population of the SCGF – Russian and Finno-Ugric tribes – has been involved in fishing for centuries. The small-numbered peoples of Izhora and Vod' traditionally lived in balance with nature, their way of



life was closely linked to their habitat.

Another natural gift is renewable geothermal energy. A significant thermal anomaly stretches along our coast for many dozens of kilometers.

The rock temperature at the depth of 2 km can be as high as 70°C. According to expert estimates, natural reserves of this geothermal energy over the area of 13 000 sq.km can be evaluated at the level of 7.5 billion tons of standard fuel. This underground sea is a practically inexhaustible source of renewable energy, which is not currently used.

The SCGF has a great potential of wind



power industry development that is widely used in nearby Estonia, but totally ignored in the Russian part of the Gulf of Finland.

And finally, we live close to four specially protected areas that require our protection.



### VALUES WE LOST

25 years ago in the coastal waters of the SCGF stretching from St. Petersburg to Estonia about 15 teams of fishermen pursued fishing in Strelna, Lomonosov, Bronka, Krasnaya Gorka, Ustje, Pejlia, Vistino, Ruchji, Khabolovka, Ust'-Luga, the Luga river, Narva bay, and the Narova river. Dozens of ships were involved in fishing.

Fish was processed at plants in Shepel'ev, Sosnoby Bor, Vistino, and Ust'-Luga.

Every month more than 5 million cans with processed fish and dozens of tons of fresh and smoked fish were produced for Leningrad and to be exported.

Currently all this infrastructure has been

destroyed. The plants do not work. In Luga Bay they use dredging for removing radioactive Chernobyl deposits from the bottom of the sea. This is harmful for spawning areas and this pollutes plankton and fish in Luga bay.

The Russian law on small-numbered peoples failed to protect this nature-balanced way of life from destruction. Business has arrived with its transnational interests where there is no place for indigenous people.

The SCGF has lost fishing and the traditional life style related to it. The whole ethnic population carrying this culture is disappearing.



# Nature Reserves of the South Coast of the Gulf of Finland



Wood-felling in the Kurgalsky reserve

## **A** Kurgalsky Peninsula

- is a wetland reserve of international value, protected by the RF laws and the international Ramsar Convention. The area of the reserve is about 60 thousand hectares. This is the model area of coastal landscapes typical to the South Coast of the Gulf of Finland. This area is characterized by the richest biodiversity in the Leningrad Oblast. More than 200 species have been entered in the Red Books.

to the growing recreation load accompanying the construction of the ports in Luga Bay;

- ▶ Depleted biodiversity as a consequence of industrial logging on the Kurgalsky Peninsula territory due to the fact that the reserve area was leased for 49 years;
- ▶ Illegal sale of protected land for housing construction;
- ▶ Lack of efficient controls over

compliance with the protection laws and a low level of environmental awareness among the authorities and the population;

- ▶ Plans of NordStream Extension pipeline installation through the reserve territory.

Map of the Kurgalsky Peninsula and the Kurgalsky reserve

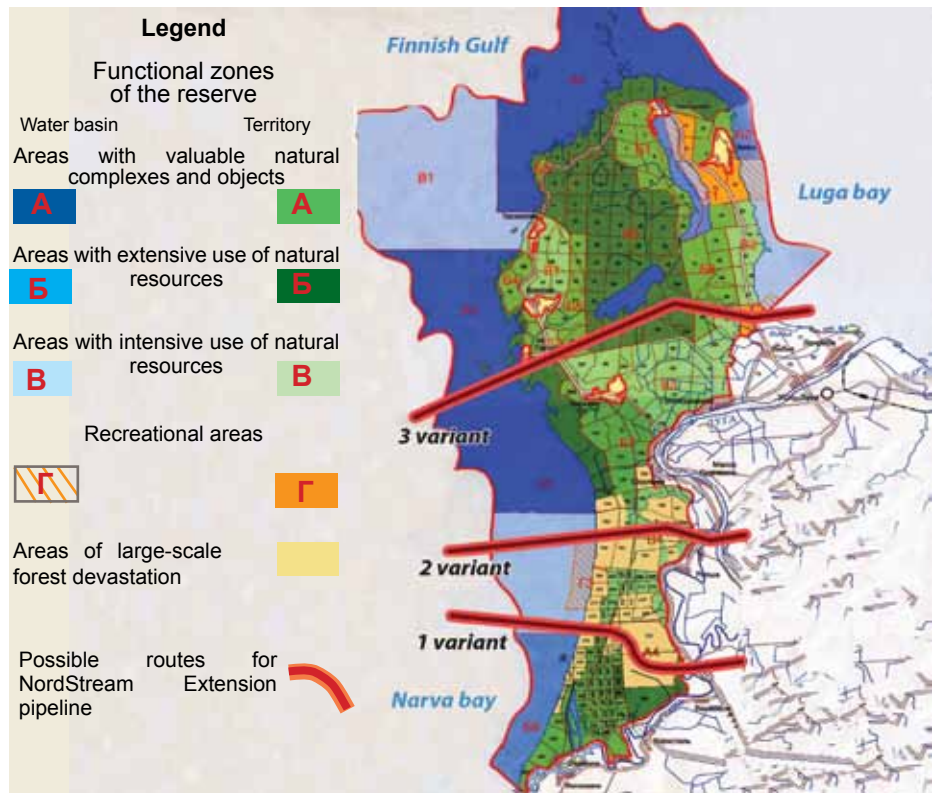


Beach on the Gulf coast of Narva. Reserve Kurgalsky

Among protected areas there are nesting and resting grounds of local and migrating water birds, as well as lair grounds of grey seals. The coastal shoals host fish spawning places; they also are a zone of natural seawater purification.

### Threats to Kurgalsky Peninsula:

- ▶ A higher risk of the coastal waters contamination with oil products resulting from intensified port development and shipping in Luga Bay;
- ▶ An increased factor of disturbance for the colonies of fish and seals and a higher risk of forest fires due



Draft Forest Plan of Leningrad Oblast involves major reduction of the area of green zones and recreational parks: 27-fold reduction according to the draft Plan and 43-fold in comparison with the area of green-belt registered as of January 1, 2003.

The 49-year forestage right to the protected Kurgalsky forest was purchased by the Baltic Forestry Holding for the price of a one-room apartment in St. Petersburg. The holding is a subsidiary of Ust'-Luga port that has a terminal within a kilometer from Kurgalsky reserve.

In the buffer zone of Kurgalsky reserve a town is planned to be built with a population of 35-40 thousand people. At the same time there is no adequate control over protection of the reserve. We can only guess where residents of this town will be spending their weekends.

## **B** Kotelsky Reserve

– an integrated reserve of regional level with an area of more than 12 thousand hectares. It comprises picturesque flow-through lakes of glacier origin: Kopanskoe, Glubokoe, Babinskoe, Khabolovo, Sudachie, as well as a part of the Gulf of Finland.

The lakes have a rich fish population - perch, pike, roach, and carp.

The Peypia stream flowing from Lake Kopanskoe has Baltic trout and European pearl oysters.

Forests around the lakes are the habitat of elks, roe deer, hogs, bears, foxes, and badgers. Rare bird species

can be seen here: grey crane, golden eagle, spotted eagle, white-tailed eagle, fish-hawk and others. The banks of the lakes are a favorite recreation place for thousands of people.

### **In the Kotelsky reserve it is prohibited:**

to fell trees in the area of natural reserves and initiate grassland fires, open fire is allowed only in designated areas. It is prohibited to park cars outside existing roads and in the water conservation zones of lakes and rivers; cars can be parked only in designated areas.

### **Threats to the Kotelsky Reserve:**

- ▶ unavailability of public information about the boundaries of the reserve and rules of behavior on this nature protected territory;
- ▶ absence of efficient enforcement of the environmental protection laws, norms and rules for the Kotelsky territory;
- ▶ a low level of environmental awareness of campers and holiday-makers (fires, household garbage, dumps and unauthorized car parking);
- ▶ representatives of authorities sell land plots in the reserve for cottages construction.



## **C** Lebiazhy Reserve

– a wetland reserve of international value protected by RF laws and the

international Ramsar Convention, which protect water birds migrating along the White Sea – Baltic Sea

route. The area of the reserve is over 6 300 hectares. Thousands of swans and other water birds stop there for rest during the spring and autumn migration. Dozens of bird species are entered into the Red Books.

In Lebiazhy it is prohibited to hunt, do construction works, disturb coastal plant and animal communities, and use motor boats after ice breakup until 25 May and from 15 September till formation of the ice. In the period 20 April – 15 July it is also forbidden to visit reed-beds; driving and use of boats is restricted to roads and permitted waterways.



Alexander Senotrusov at the border of Lebiazhy

In 2007 the Leningrad Oblast Government has scaled down the Lebiazhy borders. This led to an active business attack on this territory began, especially aggressively within the last two

years. Some dishonest people have a great desire to make money by selling these nature reserve lands. Land plots for individual construction are set up not only in the buffer zone of the exist-

ing international nature reserve Lebi-azhy, but inside this territory as well. Recently the problem of selling these land plots has become most pressing.



## Nature Reserves of the South Coast of the Gulf of Finland

### Threats to Lebiazhy:

- ▶ a high risk of coastal water pollution with oil products, as the shipping in the Gulf of Finland has become more intensive;
- ▶ a more pronounced recreation load combined with the simultaneous

reduction of the Lebiazhy reserve territory. The territories, which were cut from the reserve, are used for building of cottages along the Gulf of Finland shoreline;

- ▶ shoreline erosion caused by the excavation of sand in the sea shoal in front of Lebiazhy (London sand-shoal) and unrestricted entrance of

cars with holiday-makers;

- ▶ corrupt practices of massive selling of land plots on the Lebiazhy territory;
- ▶ absence of efficient enforcement of the environmental protection laws, norms and rules, and a low level of environmental awareness among the authorities and the population.



### Bianki Meadow

The local nature protected territory “Bianki Meadow” is the first municipal nature reserve in Russia. It was created with the money donated by local people who wanted to commemorate the writer Vitaly Bianki, the bard of Lebiazhy beauty. The reserve was created by the decision of the Deputies’ Council of Lebiazhie urban settlement on 31 July 2008. It is located near the shoreline of the Gulf of Finland on the territory of Lebiazhie settlement. The total area of the reserve is 20.1 hectares. This initiative helped to preserve resting grounds of swans and other migrating birds from the Red Book.

### Unresolved problems of Bianki Meadow:

- ▶ municipal officials are involved in illegal selling of land plots for

construction on the reserve. This is still a matter of legal proceedings.

- ▶ absence of state registration

of the Bianki Meadow as a nature protected territory.

### Bianki Meadow Reserve Boundaries



The Bianki Meadow protected territory was named after Vitaly Bianki, the naturalist writer who lived here in 1896-1915 and who opened up a local village library which has been working to the present day. Observing the lo-

cal nature he created such well-known stories as «The Forest Newspaper», «Red Hill», «Seagulls by the Seaside», and others. Altogether Vitaly Bianki wrote 11 stories about Lebiazhie.

The grateful people of township Lebiazhie donated 530 thousand rubles for creation of this first in Russia municipal reserve. In fact the Bianki Meadow became a people’s monument to their famous fellow village man.

## Most Harmful Installations of the South Coast of the Gulf of Finland

After the Soviet Union collapsed and the Eastern-European countries joined the European Union, a new social and economic situation developed on the South Coast of the Gulf of Finland. This area became a borderline between the European

Union and Russia. A powerful transport corridor was developing here, which was used for export of non-renewable mineral resources (oil, gas, and coal) and electric power from Russia to Europe. Establishment of this infrastructure was followed

by destruction of natural values and renewable resources. New risks emerged on the territory already impacted by a number of hazardous production facilities.

### Nuclear Cluster in Sosnovy Bor



Concentration of nuclear facilities in Sosnovy Bor is unprecedented in the whole Baltic Sea region. At the same time there is no evaluation of this cluster's impact on nature or possible reciprocal influence of nuclear facilities on each other.

#### 1 Leningrad Nuclear Power Plant (LNPP)

– the largest nuclear power plant on the Baltic Sea (4000 MW) having four RBMK-1000 (Chernobyl design) reactors, which use the seawater at the flow-rate of 200 m<sup>3</sup>/sec.

About 70% of thermal power obtained in the LNPP reactors is waste. During periods without accidents thermal impact of LNPP on the Gulf of Finland water area leads to:

- ▶ thermal pollution of sea ecosystems causing accelerated eutrophication (or ecological ageing of the sea);
- ▶ decline in sea fish spawning;

▶ stimulation of the growth of blue-green algae releasing toxins and depressing development of other sea species;

▶ strengthening of negative impact of heavy metals, oil products and other pollutants in the sea environment.



Masses of fish perish in the NPP cooling system, which takes in the gulf water without fish protection barriers.

During 40 years of LNPP operation there was a number of accidents and incidents. The most serious accident took place in 1975 when a fuel assem-

bly got burned, and one of the 1693 reactor channels lost its integrity. In accordance with expert estimation, up to 1.5 million curie was released into the ambient air. The radioactive contamination was registered in Finland

The background gamma level in Sosnovy Bor grew by hundreds of times. The local population was not informed about this health threat.

The designed service life of all LNPP power-generating units has been extended (30 years). The decision to extend LNPP operation till 2026 was taken without environmental assessment by the State Expertise Inspection or public hearings. But even before the end of this extended service life period there were problems with carbon that impeded safe operation of the reactors. The first power generating unit of the LNPP was stopped.

#### GREEN WORLD proposes:

to create the SCGF Community Council as a mechanism for considering interests of popu-

lation, business and power. The Community Council can become a platform for coordinating inter-

ests of the three sectors of society that will ensure a balanced development of this territory.



### 2 Radioactive Waste Processing Facility LNPP

This facility is built on the territory of the LNPP, it performs:

- ▶ Incineration of hundreds tons of combustible radioactive waste per year;
- ▶ Processing of up to 1000 m<sup>3</sup> of solid radioactive waste per year;
- ▶ Receipt, processing and conditioning of liquid radioactive waste. More than 20 000 m<sup>3</sup> of bituminous compound and more than 30 000 m<sup>3</sup> of liquid radioactive waste has been accumulated.

#### Unresolved problem:

Absence of a common policy of dealing with radioactive wastes in the Sosnovy Bor cluster.



2

### 3 Temporary Storage for Spent Nuclear Fuel, LNPP

It is used for isolation of about 40 000 fuel assemblies (5 000 tons) in special ponds within 90 meters from the Baltic Sea. They contain approximately 35 t of super toxic Pu<sup>239</sup>. There are no environmentally and economically acceptable technologies for its processing or safe disposal. A process has been started to transfer spent nuclear fuel into 'dry' storage on the bank of the Yenisei River in a restricted-access nuclear town of Zheleznovodsk in Kransoyarsk Territory. More than 27 thousand residents of Kransoyarsk Territory protest against bringing of hazardous nuclear materials into this area.

#### Unresolved problems:

- ▶ Absence of adequate public participation in control over relocation and storage of these dangerous radioactive materials.



3

### 4 Leningrad NPP-2

(LNPP-2) with first two reactors VVER-1200 (1200 MMW) is under construction next to the old LNPP.

Main impact on the environment: daily release into atmosphere of up to 200 000 tons of seawater from 5 cooling towers 170 m high.

The cooling towers have an impact on other nuclear facilities and the nature.

#### Unresolved problems:

- ▶ lack of adequate analysis of cooling towers' impact on the nature and people's health;
- ▶ Absence of technological solutions for the long-term isolation (utilization) of spent nuclear fuel.
- ▶ No systematic analysis of the new LNPP-2 s taking impact on other existing and planned nuclear-hazardous facilities in Sosnovy Bor.



4

### 5 Alexandrov Research Institute of Nuclear Technology (NITI)

has been testing nuclear submarine reactors for 50 years already.

The cooling water from the reactors, which is discharged into the Baltic Sea, is the main regional supplier of radionuclides Co<sup>60</sup>, Mn<sup>54</sup>, Cs<sup>137</sup>, and tritium.

#### NITI most serious accidents:

- ▶ The core was molten and a reactor top lost its integrity (1972);
- ▶ Thermal explosion (1979) of a component in the reactor emergency cooling system (water tank) resulted in the building demolition. Two people were killed.

#### Unresolved problems:

- ▶ unavailability of publicly available information about the normal-operation and accidental impact from nuclear facilities on the health of people and nature;
- ▶ absence of open discussion of programs for safe decommissioning of old reactors and solutions for spent nuclear fuel disposal.



5

**GREEN WORLD proposes:** to prepare and adopt laws of the Leningrad Oblast ensuring pro-

tection of interests of people living on the South Coast of the Gulf of Finland in the decision-

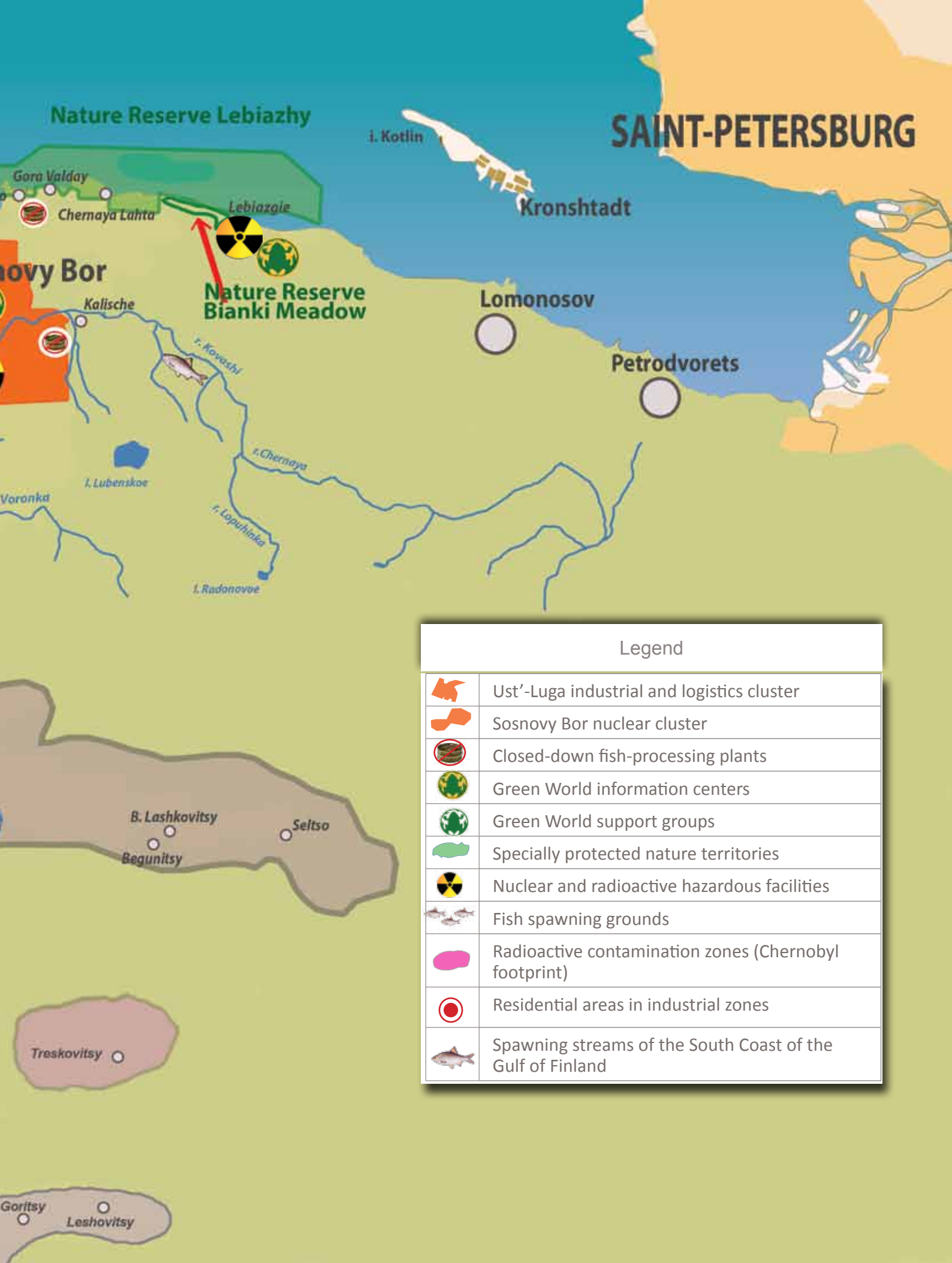
making process about construction of major industrial facilities.



# Finnish Gulf







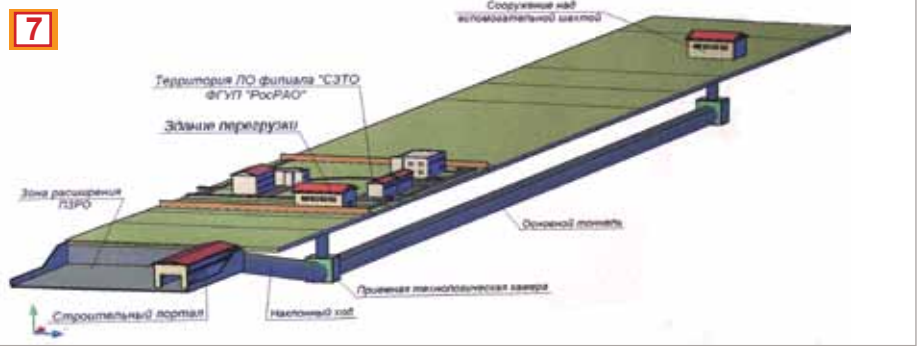
| Legend |  |
|--------|--|
|        | Ust'-Luga industrial and logistics cluster                 |
|        | Sosnovy Bor nuclear cluster                                |
|        | Closed-down fish-processing plants                         |
|        | Green World information centers                            |
|        | Green World support groups                                 |
|        | Specially protected nature territories                     |
|        | Nuclear and radioactive hazardous facilities               |
|        | Fish spawning grounds                                      |
|        | Radioactive contamination zones (Chernobyl footprint)      |
|        | Residential areas in industrial zones                      |
|        | Spawning streams of the South Coast of the Gulf of Finland |

## 6 North-West Branch of RosRAO

(former Specialized Plant RADON) is a regional facility for North-West Russia, specializing in temporary storage of solid (more than 60 000 m<sup>3</sup>) and liquid (1 200 m<sup>3</sup>) medium- and low-level radioactive wastes and spent radioactive sources. Many structures with radioactive wastes have been in operation beyond their designed service life. The exposure dose rate near the walls of some storage facilities is 200 times higher than the background level. After water extinguishing of fires (1976, 1979) the groundwater near radioactive storage facilities got contaminated with H<sup>3</sup>, Cs137, Sr90 and Pu239.

### Unresolved problems:

- ▶ Several storage facilities with radioactive wastes have been operated beyond their designed service life;
- ▶ Absence of storage space for radioactive waste in case of LNPP decommissioning.



## 7 Radioactive Burial Site

- ▶ The first in Russia burial site for radioactive waste, estimated at 2-4 billion rubles, is planned to be located in 40 km from St. Petersburg on the territory of Sosnovy Bor municipality, within 1.8 km from residential buildings. It is planned to bury up to 250 thous. m<sup>3</sup> of medium- and low-radioactive wastes in mile-long tunnels at the depth of 60 m within 800 m from the Baltic

Sea by 2030. The Radioactive Burial Site can become the final part of the European infrastructure for burying radioactive wastes for:

- ▶ ECOMET-S processing radioactive waste from the European part of Russia;
- ▶ LNPP-2 that will be partially exporting power (see. p. 7);
- ▶ Ust'-Luga port receiving radioactive materials from Europe (see. p. 12).

## 8 ECOMET-S

– largest in Europe plant for melting metallic radioactive waste (maximum capacity 10,000 t/year). ECOMET-S is a private company; it has operated from 1996 on the territory of the North-West branch of RosRAO and LNPP. The company brings and processes radioactive metal and other radioactive wastes from the European part of Russia. ECOMET-S has processed over 30,000 tons of radioactive metals. Only half of this amount is of local origin.

### 8 Shipping addresses of radioactive metal delivery from the European part of Russia to ECOMET-S



Arrival of the train with radioactive metal from Udmurtia

**GREEN WORLD proposes:**  
 to create an independent regional environmental laboratory for the habitat monitoring as an information basis for balanced decisions aiming at development of the South Coast of the Gulf of Finland.



## Nuclear Cluster in Sosnovy Bor

The idea of importing radioactive metal from other countries is promoted. ECOMET-S supplied the processed metal to the world market without informing customers about its origin. The main impact on the living environment during the normal operation is radionuclide emissions into the atmosphere. Geneticists have registered frequency of cytogenetic malformations in needles and seeds of pine trees

growing near ECOMET-S, which is 3 times higher and in Sosnovy Bor 2.5 times higher than at the distance of 40 km from St. Petersburg.

### Accidents:

- ▶ repeated explosions in the melting furnaces resulted in deaths (3 people in 2005) and disabilities of operators.

### Unresolved problems:

- ▶ Absence of independent environmental monitoring in the plant location area;
- ▶ Concentration and storage of radioactive waste from the European part of Russia on the Baltic coast (see p. 10).



8



8

### 9 Project of Cable Installation on the Baltic Seabed

for energy transmission from one of the reactors of the new LNPP under construction to the northern coast of the Gulf of Finland and further to Finland.

#### Hazards of the project:

Radioactive waste from export supply will remain in Sosnovy Bor and it is planned to transport the spent radioactive fuel to the banks of the Yenisei to the Mining and Chemical Plant in the restricted-access town of Zheleznogorsk.



9



### Unresolved problems of Sosnovy Bor nuclear cluster:

- ▶ Man-induced impact of the nuclear cluster exceeds self-regeneration capacities of the ecosystems
- ▶ Within the last 10 years the illness incidence rate among residents of Sosnovy Bor has doubled.

**GREEN WORLD proposes:**  
to develop a scenario and plans for decommissioning nuclear

hazardous facilities with expired designed service life. This should ensure a balanced development

and integrated solutions for social and economic problems.

## Industrial and logistics cluster Ust'-Luga

### 1 Liquefied hydrocarbon gases facility

Planned annual cargo turnover — up to 4.0 mln. tons.



### 2 Storage and logistics hub

Includes a container terminal, reloading of bulk cargo, etc.

The first stage is estimated at 440 thousand containers per year



### 3 Ust'-Luga container terminal

- ▶ Cargo turnover - 440 thous. containers per year
- ▶ Container yard capacity - 15 thous. containers.

Ust'-Luga port is allowed to accept ships transporting nuclear materials, radioactive substances and goods containing them in designated packaging (RF Government Decree No 1491-p of 14.10.2003)



Schema of Industrial and logistics cluster Ust'-Luga

| Existing facilities                                 |    |
|---|----|
| Liquefied hydrocarbon gases facility                | 1  |
| Storage and logistics hub                           | 2  |
| Ust'-Luga container terminal                        | 3  |
| Vehicle and rail ferry facility                     | 4  |
| Multifunctional transshipment terminal South-2      | 5  |
| Coal terminal                                       | 6  |
| Ust'-Luga oil delivery terminal                     | 7  |
| Multipurpose reloading terminal                     | 8  |
| Industrial sulphur terminal                         | 9  |
| Liquid cargo terminal                               | 10 |
| Oil transfer terminal                               | 11 |
| Oil products and bunkering terminal                 | 12 |
| Terminal for transshipment of stable gas condensate | 13 |
| Metallurgical terminal                              | 14 |
| Mineral fertilizers terminal                        | 15 |
| New Harbour terminal                                | 16 |
| FACTOR forest terminal                              | 17 |



### 4 Vehicle and rail ferry facility

Designed capacity: 2.9 mln tons per year. Area of the facility: 38.2 ha.



### 5 Multifunctional transshipment terminal South-2

suitable for transshipment of ro-ro units, vehicles, containers and general cargo. Designed capacity - 450 thousand vehicles per year.



**GREEN WORLD proposes:**  
to perform strategic assessment of the environmental situation on

the South Coast of the Gulf of Finland and adopt a plan for its spatial development with a clear division

of nature reserves, recreational, industrial and residential areas.



## Industrial and logistics cluster Ust'-Luga

### 6 Coal terminal

Planned annual turnover – up to 4.0 mln tons per year. The total capacity of the terminal is 12.4 mln. tons per year. Terminal area – 53.2 ha. Pier length - 560 m.



### 7 Ust'-Luga oil delivery terminal

The final point of the second stage of the Baltic Pipeline System (BPS-2). Designed capacity – up to 38 mln tons of oil annually.

### 8 Multipurpose reloading terminal

Designed for receiving, storage and export offloading of iron-ore pellets, pig-iron and scrap metal, oversize and overweight cargo, and building materials and equipment.



### 9 Industrial sulphur terminal

Planned capacity of the industrial sulphur terminal - 9 mln tons per year



### 10 Liquid cargo terminal

Designed for export offloading of oil and marine fuels. Maximum turnover - 30 mln tons per year



### 11 Oil transfer terminal

Maximum turnover – up to 40 mln tons per year.



GREEN WORLD proposes: to ratify Espoo Convention on Environmental Impact Assess-

ment in a Transboundary context. This will ensure a wider involvement of the general pub-

lic in the decision-making process about large-scale projects.

### 12 Oil products and bunkering terminal

for preparation and storage of marine fuel and bunkering. Capacity 1,0 mln. tons per year.

### 13 Terminal for transshipment of stable gas condensate

Export supplies of processed stable gas condensate products: diesel fuel, aviation kerosene, naphtha.

Total capacity - 6.0 mln tons per year



### 14 Metallurgical terminal

Designed total capacity of the terminal - 6.0 mln. tons per year



### 15 Mineral fertilizers terminal

It is planned to put this terminal into operation in 2015.

Turnover - 5 mln tons.



### 17 FACTOR forest terminal

port facilities for transshipment of wood and other industrial cargo.



### 16 New Harbour terminal

The terminal was built in 2011 in the North-East part of the Luga inlet of the Gulf of Finland, it is a separate cargo area of the Ust'-Luga port. The terminal is designed for receiving vehicles and general cargo on the territory of the pier and dockage facilities which previously belonged to Baltica fishing farm that was working for many decades.



### 7 Carbamide plant

It is planned to build a plant with annual production output of 1 240 thousand tons of granulated carbamide and 350 thous. tons of ammonia by 2017 in the industrial zone of Ust'-Luga port near Yugantovo village. The project aims at export of products and industrial waste will stay at the Russian coast of the Gulf of Finland destroying the traditional lifestyle of the indigenous population. About ten villages will be drawn into the industrial zone of the Luga inlet coast.

GREEN WORLD proposes: to develop a regional program aiming at preservation of culture

and the traditional way of life of the indigenous population of the Gulf of Finland in order to protect them

during implementation of large-scale transnational projects.



## Other hazardous installations of the South Coast of the Gulf of Finland

### Radioactive contamination of the drinking water system in township Lebiazhie

(5000 inhabitants) was detected by chance in 1989. For decades before that, this groundwater dangerously contaminated with radium (Ra226 и Ra228) was consumed by people.

Without knowing about it employees of the local water station were exposed to 11 rem/year dose rates, which is five times higher than the exposure of NPP employees.

In the 1990s Lebiazhie was connected to a different drinking water system, but it continues to use old pipes, deposits inside which were ac-

cumulating for decades. The exposure of these pipes reaches 1500 mcR/h, it is 100 higher than the background level. After rectification of frequent failures at the main water pipe, inhabitants get muddy water enriched with radionuclides.

In order to improve the safety standards for Lebiazhie residents it is necessary to take urgent measures:

- ▶ provide the local community with information on health protection measures in the current situation;
- ▶ replace 6 km of the township pipes contaminated with radionuclides;
- ▶ replace water supply and sewage pipes in houses;
- ▶ if necessary, dispose of the discarded contaminated pipes in the radioactive storage;
- ▶ organize health monitoring of Lebiazhie residents;
- ▶ develop proposal for the governmental compensation to the people who suffered due to this environmental hazard.



### Trainloads of ammunition drowned in Bolsheizhorskoe Lake

The ammunition evacuated from Tallinn naval base was sunk in the lake under the threat of capture by advancing Nazi troops in the second half of 1941. The lake has been guarded by the military.

It is necessary to evaluate the risk of the possible negative consequences for the health of people and the wetland reserve Lebiazhy in case of detonation or natural deterioration of shells that have stayed in water for more than 70 years. The Baltic Sea and the Lebiazhy reserve are a few hundred meters away from the lake with submerged ammunition. Nearby there are townships Lebiazhie and Bolshaya Izhora with almost ten thousand population.



**GREEN WORLD proposes:**  
to extend the number of protected territories of the South

Coast of the Gulf of Finland by creating municipal nature reserves using the experience of

Lebiazhie township in establishment of Bianki Meadow reserve.

## GREEN WORLD information centers

### Green World Center of Ecology and Culture in Township Lebiashie

carries out nature protection and history-and-culture educational programs.

Most significant projects with the Center participation.

- protection of nature reserves Lebiashy and Bianki Meadow from commercial use;

- creation of a public museum for preservation of historical relics of the Krasnaya Gorka Fort;

- reconstruction of historically authentic female costumes of indigenous population of the South Coast of the Gulf of Finland.

Address of the Center: township Lebiashie

Head of the Center: Alexander Senotrusov, mob. +7 950 00828333



### Green World Information Centre (GWIC) in Sosnovy Bor

Major activities of this main office of the organization are related to safety monitoring of the habitat of the South Coast of the Gulf of Finland.

The Center publishes the Green World Baltic Bulletin and creates video films about nature protection.

Among the main monitored facilities there are nuclear and radiation hazardous enterprises and nature reserves and marine ecosystems of the South Coast of the Gulf of Finland.

One of the most important areas of the Center operation is studying of the world experience of decommissioning old nuclear plants when their designed service period expires. This area is being developed together with Russian, Norwegian, Lithuanian and German partners.

Every year Green World organizes moving eco conferences on bicycles for visiting the sites and studying problems of the South Coast of the Gulf of Finland.

More detailed information on GW activities can be found at [www.greenworld.org.ru](http://www.greenworld.org.ru) and [www.decomatom.org.ru](http://www.decomatom.org.ru).

Green World contact information:

Tel./fax: (81369) 72991,

E-mail: [info@greenworld.org.ru](mailto:info@greenworld.org.ru),

Address: Liningradskaya St. 48, Sosnovy bor, 188541, Leningrad oblast.



### Green World Information Centre (GWIC) in Vistino

The major goals of GWIC activity in Vistino is raising the awareness of residents of the nearby villages near the Luga Inlet about new hazardous projects planned for implementation in this area. GWIC activists take part in public hearings on the projects and prepare materials for publication in the Soykinsky Bereg newspaper. One of the main areas of work is the organization of environmental campaigns and preparation of requirements for initiators of construction projects aiming at nature protection and preservation of traditional fishing.

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