

Harmful installations in the Baltic Sea Region

- *Oil extraction, oil terminals and harbours*
- *River protection and harmful hydro-power stations*



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Foreword

CCB published in 2002 a yearbook on Baltic Sea Hot Spots – Hazards and Possibilities for the Baltic Sea Region. Red spots describing environmental hazards from existing and planned activities and Green spots describing activities that outline possibilities for sustainable development.

CCB yearbook 2002 identified some development trends and areas that should be of special concern:

- *Eutrophication from small and diffuse sources*
- *Many threats to Baltic Sea coastal areas – new oil-terminals, harbours, housing areas, recreational centres, marinas*
- *Hydro-electric power plants and dams – upcoming threat*
- *Fisheries – a problematic sector with strong environmental impact*

The CCB yearbook 2003 focus on two of the above-mentioned trends:

- harmful installations of new oil-terminals and harbours, including oil-shipping;
- harmful hydro-electric power plants.

New oil-terminals and harbours, including oil-shipping

The increased density of shipping in the Baltic Sea Area and its environmental impact relates mainly to global changes on the oil-market, and an raised interest to buy Russian oil on the world market.

The expansion and plans for export of Russian oil through the Baltic Sea will threaten, not only Russian coastal waters, but also the whole Baltic Sea through increased risks for oil-spillages, more accidents with sub-standard ships and single-hull tankers and because of not sufficient oil combating capacity.

The recent pollution incident of the *Prestige* oil-tanker, off the Spanish coast, could just as well have happened in the Baltic Sea. The *Prestige* was on its way to Spain, but was first loaded in the Russian Primorsk-terminal, and later loaded, by a ship from Klaipeda, off-shore the Latvian coast at Ventspils.

To keep away from the obvious and raised threats from oil-tanker accidents, oil-spillages etc in the Baltic Sea area, EU should put a strong political pressure on Russia. *EU, and all Baltic Sea region governments, should negotiate agreements*

with Russia that secure a more environmentally friendly development of the Russian oil-business in the Baltic Sea region.

The more traditional way to do this would be to set up strong requirements for secure and high-standard shipping, maritime traffic regulations, mandatory pilotage, PSSA (Particular Sensitive Sea Area) status for the Baltic Sea etc.

Another way to do this can be to make an *agreement between EU and Russia, that would relieve the Baltic Sea from expansion of Russian oil export through the Baltic Sea.* Russian oil would instead be transported through oil-pipelines directly to the North Sea, by extending oil-pipelines from Eastern Europe to Netherlands or Belgium. Russia must, in such case, be guaranteed full control and same profitability from oil-terminals in North Sea, as on Russian territory. Russia would also get easier access to the world oil-market, and the sensitive Baltic Sea would be relieved from expanded oil transports and connected environmental risks. Such agreement could be a Win-Win situation for both EU-countries and Russia.

Plans for new harmful hydro-electric power plants in Baltic Sea rivers

In recent times countries like Estonia, Latvia and Lithuania have found out that hydro-power could be an important national energy-source for renewable energy, "Green energy". But the ministries, institutions and companies that developed these ideas did not take into account the "biological costs of hydropower". This situation has resulted in lively discussion on the national level, with very contradicting views among energy developers and environmentalists. The national legislation were not developed to foresee such problems.

The outcome of the political process in Latvia and Lithuania has been very positive. In Latvia 214 rivers, or stretches of rivers, are now under protection and in Lithuania 147 small rivers cannot be used for dam constructions.

We hope the experience of the process for protection of many rivers from exploitation with dams and hydro-power in Latvia and Lithuania will encourage other Baltic Sea region countries to do the same.

Gunnar Norén
Executive secretary
Coalition Clean Baltic

Increased Maritime Safety for the North Sea and the Baltic Sea

Paper prepared by BUND Working Group "Meer und Küste" (Seas and Coasts)

The increase in shipping and maritime trade in the North Sea and the Baltic Sea regions represents an ever increasing risk for our seas and coastal areas. Extensive measures to improve maritime safety are urgently required in order to counteract this growing threat. Not only the recent major pollution incidents, involving the timber freighter *Pallas* in the North Sea, the tanker *Erika* off the coast of Brittany, the *Baltic Carrier* in the Baltic Sea and the *Prestige* off the Spanish coast, but also the near misses by the *Clement* and the *Highland Faith* in the Baltic, are exemplary warnings of the threat lurking on the seas at our doorstep.

The urgency of this problem is magnified astoundingly by the increase in Russian tanker traffic in both the North Sea and the Baltic Sea. Russia currently expands her oil terminal capacities in the Gulf of Finland and redirects oil exports from the Black Sea to the Baltic. A new pipeline, leading from Kazakhstan to St. Petersburg, will eventually double the amount of oil transported to the Baltic for export. Likewise, the Baltic States are upgrading their oil ports. These trends show that in future a significantly higher proportion of tankers, and typically old Russian tankers with low safety standards, will pass through our coastal seas. Action needs to be taken!

The following catalogue of demands stipulates the main measures the BUND believes need to be taken in order to reduce the risk of shipping accidents in the North Sea and the Baltic.

MARITIME TRAFFIC MONITORING

The BUND demands complete radar monitoring of vessels along the German coast and seas including the Exclusive Economic Zone (EEZ), supplemented by an Automatic Identification System (AIS).

The principal requirement for a safety concept is a continuous monitoring of vessel movements. The task of this traffic monitoring is the identification of all vessels and the generation and continuous update of the traffic situation. This form of control can only be realised by the use of long-range radar tracking.

Currently, North Sea vessel movements within German territorial waters and the EEZ, outside the navigational approaches of Jade, Weser and Elbe, are monitored solely by the long-range radar station at Helgoland. The acquired data of this station, which has a range of 48 km, are relayed from Helgoland to the vessel traffic control centre “German Bight Traffic” at Wilhelmshaven, where they are monitored and analysed by the Supervising Watch Officer, supported by a Nautical Assistant. In the western Baltic, no similar monitoring system has been established to date, with the exception of navigational approaches for selected ports.

The gradual introduction of Automatic Identification Systems (AIS) by 2007 for vessels from a certain size upwards represents a useful additional control mechanism, but does not replace the necessity for long-range radar surveillance. Traffic control which is equipped solely to capture data from AIS transmitters would thus not be particularly effective. It is more than likely that sub-standard vessels will also employ sub-standard AIS systems which comply only on paper. Moreover, it is unclear how traffic control without long-range radar will be able to pin-point a ship, passing through the respective control area, with a malfunctioning or offline AIS system.



In order to avoid potentially dangerous situations in the intensifying maritime traffic, strict regulatory mechanisms are needed. *Photograph by Peeter Vissak*

MARITIME TRAFFIC ROUTEING

In order to increase maritime safety, the BUND demands navigational assistance and routeing from radar-operating pilots for all vessels in adverse environmental circumstances, such as low visibility, strong gales / storm and ice.

To date, radar-based routeing service is only provided following special request, and is limited to vessels of a certain size or cargo, such as oil, chemicals and other dangerous goods. Furthermore, routeing is only offered for a selection of shipping areas and approaches.

In future, the service must be extended to include all territorial waters and the EEZ in order to make navigation in German waters easier for all ships, thus reducing risk.

MARITIME TRAFFIC REGULATION

The BUND demands safety-oriented regulation of maritime traffic to avoid or minimise risk.

The responsible authorities carry out active traffic regulation very hesitantly and only if faced with imminent danger. To date, the Watch Officers and Nautical Assistants of the control centres do not work according to unambiguous procedural instructions for traffic regulation.

It is necessary to organise maritime traffic regulation similarly to aviation control in order to avoid potentially dangerous situations. This includes, for instance, regulatory mechanisms which prohibit the close passage of passenger ships and chemical tankers in narrow navigational lanes. Change of course in good time reduces risk and alleviates the flow of traffic.

Ideally, this would be realised by the formation of an international traffic control centre for a complete monitoring of vessel traffic, applicable to wider regional sea areas.

MANDATORY PILOTAGE

The BUND demands an extension of mandatory pilotage for all navigation lanes within German territorial waters, inclusive of the EEZ, for all vessels transporting oil, chemicals, gas and other dangerous goods.

The BUND also demands mandatory pilotage for all vessels with a draft in excess of 9m (tankers: > 7m), and for all vessels in excess of 180m length, destined for the

Baltic Sea approaches (Great Belt, Little Belt, Sound) as well as the Kadetrenden, the Gulf of Finland and the Bothnian Sea.

The pilotage regulations for the North Sea estuarine areas Ems, Weser / Jade, Elbe as well as the Baltic Sea ports are limited to immediate coastal areas, that is, landward of the river mouths. Only particularly large vessels are subject to mandatory pilotage on leaving the deep water navigation lanes. However, in assessing risk potential of a vessel for maritime traffic and the environment, ship size represents but a single of a multitude of factors to consider.

Proactive shipping companies support their vessel masters by supplying at-sea pilots who board the vessels prior to reaching traffic separation areas and who advise vessel crew throughout the passage. In the Kadetrenden, for which pilotage is recommended for deep-draft vessels, approximately 95% of vessels take pilots onboard. None of the 20 vessels or so which have grounded on the Kadetrenden over the past five years had a pilot on board.

In 1988, the German Water and Shipping Directorate (North) Authority (*Wasser- und Schifffahrtsdirektion Nord*) commissioned a study entitled *Assessment of measures for cost savings in pilotage*; this was indicative of a continuous strive towards a softening stance on mandatory pilotage. However, any cost-saving measures are only realisable at the expense of maritime safety. Land-based routeing and advisory service is a supportive initiative, but certainly no substitute for on-board pilotage, since it lacks direct information regarding the situation onboard as well as the possibility for immediate mitigative intervention.

The personal qualification of individual pilots is of primary importance for the quality of pilotage as a whole. The minimum entrance requirement for this profession must continue to be a certificate of competence, obtained as part of a degree course at a Higher Education Institution. Reducing the entrance requirements to the international minimum standard STCW (Standards of Training, Certification and Watchkeeping) represents a clear deterioration in quality.

PSSA STATUS FOR PARTICULARLY SENSITIVE BALTIC SEA AREAS

The BUND demands the designation of particularly vulnerable sea areas in the Baltic as PSSAs (Particularly Sensitive Sea Areas) in line with the IMO (International Maritime Organisation) framework.

PSSAs are marine areas requiring special IMO protection due to their ecologic, economic, cultural or scientific significance and their specific vulnerability towards detrimental effects of maritime traffic. Once PSSA status has been granted by the IMO, special measures may be implemented which exceed the standard internationally recognised IMO traffic provisions. Such measures may include, for instance, the establishment of traffic separation schemes, compulsory navigational lanes and closed areas, as well as mandatory pilotage and the introduction of formal maritime traffic management. The recognition of selected

marine areas in the Baltic Sea as PSSAs would therefore represent a significant step in introducing necessary measures for improved maritime safety. The BUND identifies the following areas as being particularly prone to the effects of unsafe shipping: the Belt Sea, the Sound, the German Bodden Coast (lagoon landscape) including the island of Rügen, the Swedish and Finnish Archipelago Seas as well as the Gulf of Finland. The designation of PSSAs should also take into account the Baltic Sea Protected Areas (BSPAs) specified by the Helsinki Commission (HELCOM).

To date, a total of two PSSAs have been designated worldwide. A further PSSA application for the Wadden Sea Coast (German Bight) has been received already by the Wadden Sea States and is appointed as a PSSA by IMO.

TASK FORCE CAPACITY

The BUND demands the provision of adequate task force resources (salvage tugs, fire fighting vessels, lighter vessels) which mirror the level of existing maritime traffic and are upgraded in line with future traffic development.

The BUND also demands an improved coordination of existing resources beyond the German legislative boundaries.

Maritime traffic in the North Sea and the Baltic is continuously growing, with both an increase in vessel quantity and size. Even today, container ships with a capacity of 8000 containers roam the waters of the North Sea. Given strong gale or storm conditions, such jumbo container ships require tugs with a tow force in excess of 220 tons bollard pull in order to be manoeuvred and stopped.

The BUND considers the stand-by multi-purpose vessels advocated by the German Ministry of Transport as insufficient, since their respective tow forces of 110 tons bollard pull are too small, their towing performance is substantially reduced in rough seas due to shallow draft, and the vessel speeds in adverse weather conditions are inadequate. Emergency situations demand ocean-going salvage tugs with a high tow force and speed, particularly in rough weather.

The BUND has estimated that in order to provide adequate salvage tug capacities along the German coast in future, there is a minimum requirement for a ocean-going tug vessel in the North Sea with a 220 – 250 ton bollard pull capacity, and a similar vessel in the Baltic with a tow force in the range of 130 – 150 tons bollard pull. The objective would be to provide sufficient resources in terms of vessel quantity and readiness-for-action to allow for on-site emergency assistance within a maximum of 3 hours after the logging of the distress call.

The down-scaling of fire fighting vessels along the German coast over recent years has led to an intolerable lack of fire fighting capacities in the case of major incidents.

The state-run multi-purpose vessels are solely equipped to comply with the provisions governing point source fires and rescue, and are therefore no suitable substitutes.

Moreover, additional capacities to lighten vessels laden with oil or other goods must be provided following groundings or collisions. This must also include the capacity to lighten explosive or toxic goods carriers. It is essential that qualified salvage personnel, experienced in cargo handling, is available for such operations. A short-term charter of lighter vessels as a mere reaction to shipping accidents is deemed too insecure to carry out preventive measures reliably, swiftly and thoroughly. Appropriate vessels and experienced salvage personnel must be available immediately following an accident. If lighters cannot be held on stand-by permanently, appropriate contractual agreements with shipping companies must be in place, as a minimum, prior to emergencies.

The BUND explicitly welcomes the formation of the National Accident Task Force (“Nationales Havariekommando”) for Germany’s coasts. Coordinated operations of task forces, however, must also be ensured beyond German legislative boundaries. The cooperation of the respective national institutions and authorities must be further improved and optimised and shall be subject to pro-active and binding agreements.

PLACES OF REFUGE NETWORK

The BUND demands the establishment of a “Places of Refuge Network” for ship casualties along the German coast in agreement with neighbouring states.

For years, salvage experts have called for the provision of vessel safe havens. These are emergency refuges or safe anchorages which may be used by ship casualties. Demand for such safe havens has been exemplified continuously by the break-up of the tankers *Erika* and *Prestige*, the sinking of the chemical tanker *Ievoli Sun* in the English Channel and of the *Treasure* off South Africa, as well as the odyssey of the tanker *Castor* in the Mediterranean.

There is a conspicuous lack of places of refuge along the German coast; the direct consequence is that ship casualties are either hindered to approach near-by ports or are forced to move into areas which represent a significant risk both to coastal communities and the environment.

RAPID RESPONSE CAPACITY

The BUND demands a significant increase in capacity to tackle spills of oil or other hazardous substances.

The BUND demands that current experience and know-how regarding response to oil spills or other hazardous substances is collected and analysed, is applied to the development of state-of-the-art emergency response techniques, and shall serve as a base for future salvage and contingency planning and methodology.

The German government initiated a major Research & Development (R&D) Programme in the mid-1980s, which led to the development and the construction of several dedicated oil-combat-ships. Since then, R&D funding for these projects has been curtailed, and consequently the leadership in technological know-how and expertise has been lost in this area.

STRENGTHENING OF PORT STATE CONTROLS (PSCs)

The BUND demands tougher port state controls and corresponding significant increase in state funding.

Port state controls (PSCs) are exercised worldwide. This includes an inspection / assessment of compliance with internationally recognised minimum maritime safety regulations onboard vessels, carried out by representatives of the port state. This audit is mostly limited to an examination of certificates and vessel logs; an evaluation of the state of the ship, its equipment and sea crew – as measured against the existing paperwork and records – continues to be an exception. In 2000, the MEP Mark Francis Watts stated in a work report on behalf of the European Parliament:

In contrast to the work by the vessel classification societies, the port state controls do not include a thorough examination of the technical state of the vessel, but are limited mainly to documentary control.

Furthermore, we must also consider whether the specified objective, that is, port state control of a minimum of 25% of vessels destined for EU ports, has actually been achieved. According to the Statistical Annex of the latest Annual Report of the Paris MOU [Paris Memorandum of Understanding Port State Control], Belgium, Denmark, France, the Republic of Ireland, the Netherlands, Portugal and Sweden did not achieve this goal. In the case of Belgium and the Republic of Ireland, the control percentage was in the order of 10%. The observed large variances in these figures, which range from less than 10% to in excess of 40% within the EU, give rise to the question whether all controls were carried out with an equal level of quality and strictness. Moreover, according to unofficial data, there is a tendency by some ports to favour those vessels which exhibit good all-round maintenance in order to waste as little time as possible and comply with the 25% target.¹

The crude oil tanker *Erika*, which broke up in December 1999 off the Atlantic coast of France, was also subject to port state control and passed without cause for complaint only days prior to sailing. The European Union has therefore initiated a tightening of

¹M. F. Watts faithful translation

port state controls as part of a catalogue of measures designed to improve safety at sea.

Adequate personnel and technical resources must be made available for the existing port state controls, and likewise for a tougher control regime in future. Currently, the German Maritime Trade Association (*See-Berufsgenossenschaft*), which is tasked with conducting port state controls in German ports, receives but the bare minimum of financial funding from the German Transport Ministry in order to carry out its duties.

REDUCTION OF EMISSION RISK OF HAZARDOUS SUBSTANCES FOLLOWING SHIPPING ACCIDENTS

The BUND demands a ban of single-hull tankers in the North Sea and the Baltic Sea as soon as possible, and in no case later than 2006.

In addition, the BUND demands the safeguarding against hazardous substance emissions from vessels other than tankers by the use double-hull vessel design.

Hazardous liquids must no longer be transported in tanks whose outer walls are identical to the hull of the vessel. The use of double-hull tanks represents an urgently required reduction in emissions risk in the case of groundings or collisions.

This should be applicable to the cargo itself, but also to vessel fuel and lubricants. The accident of the timber freighter *Pallas* has clearly shown that it is not only tankers (and their cargo) which represent an enormous risk to the marine environment. The sheer quantity of fuel onboard larger freighters alone can result in marine and coastal pollution of considerable extent in case of accidents. In commercial traffic, the use of heavy fuel oil is customary; this type of fuel forms water-in-oil emulsions on contact with the marine environment; it hardly evaporates and remains on the sea surface over long periods of time. It is thus no more environmentally benign than crude oil from a tanker.

For smaller vessels engaged in national coastal shipping, there should be – as a minimum – a general change towards lighter fuel types (i.e. marine diesel oil, marine gas oil).

BUND Arbeitskreis AK Meer und Küste



Photograph from www.pakterminal.ee

The carriage capacity of railway systems is a limiting factor of terminal capacities. Transit companies are interested in transport solutions, which allow higher efficiency and bigger volumes, e.g. shuttle trains from Russia to Estonia and bigger tanker ships.



The success of private operators in the Port of Tallinn has been remarkable. Generally the transhipped volumes grow in all terminals. *Photograph from www.pakterminal.ee*

Oil Transportation and Oil Terminals In the Northern Part of the Baltic Sea

Paper prepared by Peeter Vissak and Valdur Lahtvee, Estonian Green Movement

Global changes have impact on the Baltic Sea

Unanimous linear correlation exists between the global growth in oil consuming and oil production. According to Jean-Paul Rodrigue¹ in 1920, 95 million tons of oil were produced annually around the world. This number reached 500 million tons by 1950, a billion tons in 1960, and an average annual production around 3 billion tons in the 1990s. This strong growth rests for a very large part on the availability of oil resources and their low cost. Continuous technological innovations in surveying and extraction have enabled to discover and economically exploit oil resources in previously inaccessible locations. This notably involves arctic and subarctic environmental conditions (e.g. Alaska and Siberia) or offshore locations.

The relationships between oil supply and demand are characterized by geography of production and consumption. There is a strong spatial differentiation of supply and demand. Because of geographical and geological factors, where oil is mainly produced is different from where oil is mainly consumed. This can only be overcome by massive oil transportation infrastructures, including pipelines and tankers.

The volume of international trade in oil increased as a result of world economic growth. The largest oil consumers are the most heavily industrialized countries such as the United States, Western Europe and Japan. Since oil consumption and production do not happen in the same places, the international oil trade is a necessity to compensate the imbalances between supply and demand. While industrialized areas have usually negative oil balance, certain states, owing oil deposits have remarkable surplus of several million barrels per day. This spatial differentiation of supply and demand can only be overcome by oil transportation.

Maritime transportation is the dominant purveyor of international freight distribution and evolves over a global maritime space. International maritime routes are thus forced to pass through specific locations corresponding to passages, capes and straits and enclosed sea areas.

International transportation is a mean to compete on the global economy. For several countries, the development of their international transport system has favored exports and transport related activities such as shipbuilding, trade and insurance.

¹ <http://people.hofstra.edu/geotrans/eng/ch5en/appl5en>

Geostrategically important passages have been the dominating bottlenecks and geopolitical confrontation spots throughout the history. The fact that the Baltic Sea area has reached political equilibrium and is by now commonly held makes it a favourable shipping zone, but due to historically developed dense population leaves it prone to any kind of accidents and pollution.

Transit business is currently booming in the direction of Russia, mainly due to the restrictions, set by OPEC on oil production and of course the instability in the Middle East and Gulf area. The market conditions, created by that situation, are so great, that railways and ports of the Baltic States are blocked by Russian oil trains for months

Oil transit – imminent reality

During the last decade the big picture of oil transit business on the Baltic Sea (particularly on the Gulf of Finland) has quite radically changed. Some channels are stagnated or fatally shrinking (e.g. Stockholm, Helsinki and Hamina), some are keeping their high profile (Ventspils), while some (St. Petersburg and Tallinn terminals) have rapidly increased their transit volumes. Although the success of private operators in the Port of Tallinn has been remarkable, it is evidently only the matter of time when the largest ports of the Baltic are situated around St. Petersburg.

According to the CEO of one Russian oil company the Baltic States earn approximately 1,5 billion dollars a year for transshipping Russian oil. As Mr. Arnout Lugtmeijer, the manager of the company E.O.S. (Estonian Oil Service - a company related to the Coastal Corp. of the USA) has admitted, there is no end foreseeable for the growth of the transshipment, because more and more oil is being produced in Russia. Mr Lugtmeijer has also declared, that E.O.S. could export far more oil products through its terminals, but unfortunately the carriage capacity of both the Estonian as well as the Russian railway systems is close to maximum capacity.

Evidently due to those constraints Pakterminal (Estonian-Dutch joint venture, situated in the ice-free Port of Muuga) is currently developing a new shuttle train link between Russia and Estonia. Pakterminal's partner Linkoil already has experience of direct transboundary railway connection. Shuttle trains would shrink the transport duration about 5 times.

The number of oil tankers, sailing the Gulf of Finland is rapidly increasing. They are crossing the busy shipping route between Helsinki and Tallinn and the intensity is constantly growing. According to Jukka Perttu (HELSINGIN SANOMAT, 24.01.02), by 2005 when the Russian oil terminal in Primorsk gets into full operation, the amount of oil sailing on the Gulf will have quadrupled from what it was in 1995. And the growth goes on from there. There will be more and bigger tankers while the amount of other types of transport is also increasing. Consequently the risk of collision is growing.

Success of different operators has been slightly fluctuating, but generally the transshipped volumes grow in all terminals.

On the July 4th 2002 Baltic News Service (BNS) announced that in June 2002 Eurodek Group Estonia (Estonia's largest Danish-owned oil terminal, based in the Port of Muuga) transmitted 967.500 tons of crude oil and oil products. That is a little bit less than a million tons. Eurodek has also announced to BNS that during 6 months different companies of Eurodek have transmitted in Estonia all together 5,5 million tons of fuels. In May 2002 Eurodek had treated extraordinarily 1,15 million tons of oil products.

On the July 1st 2002 BNS announced that E.O.S. had transmitted 574.000 tons of heavy fuel oils, that makes 3,1 million tons per half a year. Mr. Arnout Lugtmeijer, the chairman of the Board of the E.O.S. told that in June 2002 they have freighted 9800 railway cisterns of heavy fuel oils to eight ships with the average burden of 70.000 tons. During the latest 6 months E.O.S. have freighted all together 53.000 cisterns of fuel oils to 49 tankers. By the end of 2002 those numbers had increased up to 95 ships (the largest tanker being MS Front Climber with capacity of 169.146 tons) and 100.000 cisterns.

“According to the fact that our index of effectiveness is 4 (i.e. we have freighted and depleted our terminal containers fully 4 times per month), it makes us the most effective heavy fuel oil terminal within the whole Baltic Sea Region,” said Mr. Lugtmeijer. Additionally – the amount of the heavy fuel oil, transmitted by E.O.S., compounds almost 20% of that of the former Soviet Union states.

By the beginning of July 2002 the Port of Tallinn had increased its commodity circulation more than 19% compared to mid-2001. The quantity of liquid cargo therein had increased 18,1% (up to 12,3 million tons).

If the positive developments in the Russian economy and its economic policies continue, the Port of Tallinn hopes to increase its goods volumes to 43 million tons by 2006.

Being competitive in international trade is of vital importance to the Baltic States. E.g. in Estonia the transport sector produces 10 percent of gross domestic product and covers about 8 percent of overall employment.

Although oil transit through Latvia was severely shrinking in 2002 (e.g. during the first 11 months Ventspils Nafta freighted 13,2 million tons of oil and oil products, that makes 35,6% less than in 2001). According to BNS (06.01.03) the extremely cold winter arouse new interest towards the Port of Ventspils. Mr. Aivars Lembergs, the Mayor of Ventspils, said that in the time, when Gulf of Finland ports are deeply frozen, the rumour about the Port of Ventspils turning insignificant is too much premature, due to the non-freezing sea and flexible tariff policies. He also added that the highest profit will be gained by transit via Butinge and Ventspils.

Estonian Telegraph Agency (ETA) Online News announced on January 17th, that Russian oil company Noil Group has planned to build two oil and gas product factories to Sillamäe, NE Estonia. Noil Group, who is closely connected with Gazprom, the World's largest gas concern, has purchased a parcel of land from AS Silmet and is planning to launch the 1 million ton capacity oil chemistry factory by the end of 2003. Another factory is planned to launch in 2004, that will process gas products. Noil Group has preferred Sillamäe due to the hope that Estonia will soon become a member of EU and also due to the harbour, planned to be built to Sillamäe. Several other companies are planning to build gas processing factories to Sillamäe (preferably before the accession takes place), that in turn has winded up the harbour building. All that indicates that Sillamäe will probably become one large chemistry industry area, supported by a high capacity harbour.

LUKOIL is planning to expand liquid cargo transit amounts in the Baltic Sea Region. Early in 2002 it was announced that according to the announcement in "Vedomosti" Russia will launch a subsequent terminal for oil, ammonia and methanol in Vysotsk, 30 km North from Primorsk, in the inner part of the Vyborg Bay. The new terminal's project capacity will be 10 million tons and it is intended for tankers up to 70,000 tons. No need to tell that the new terminal will add quite an amount of transit shipping intensity to the Gulf of Finland and the whole Baltic Sea area.

Primorsk terminal has planned to increase its capacity up to 90 million tons per year by 2004. In 2002 13 million tons was transported via Primorsk.

New industrial and transport complexes are now planned or under construction in the Luga Bay area. Among them:

- Coal terminal (4.5 million tones a year)
- Wood terminal (1.1 million tones a year)
- Oil terminal (5 million tones a year)
- Containers terminal (1 TEUs a year)
- Mineral fertilizer terminal (5.5 million tones a year)
- Food and cereals terminal (4 million tones a year)
- Roadstead terminal (0.5 million tones a year)
- Port in the Luga River Mouth (0.6 million tones a year).



New terminals and increased capacities are the keywords of increasing transportation and traffic in the Baltic Sea area.

*Photograph from
www.pakterminal.ee*

- Container terminal in Vistino (1.5 million tones a year)
- Aluminum plant (1 million tones of ore + 360.000 tones of aluminum a year planned for transportation via the Luga Bay).
- Ferry terminal (4 million tones a year).
- Port railway/road/social Infrastructure.

Looking into the future it is obvious that the capacities mentioned in the list above will certainly increase. Russian oil production industry is going suddenly uphill, while Northern European and North American markets are continuously the most attractive. In order to compete with new Russian terminals all the other Baltic Sea Region countries are fostering their specific features (such as flexible tariffs, up-to-date equipment, bigger natural depths, advanced infrastructure, supporting railway network or ice-free harbours). General tendency is to develop deep sea terminals for tankers with cargo more than 100.000 tons.

Forecast for next 10 years says that the capacities of oil production will increase immensely and reach the peak in 2010 – 2020 while Russia and Middle-East will hold the leading edge.

Real and potential dangers

The Baltic Sea with its unique oceanographic and ecological conditions is especially sensitive to environmental pollution. It is an enclosed shallowwater-body, that exchanges its water volume within 25 years. Many islands, unique archipelagos, shallow straits, as well as periodic ice-cover make the consequences of oil spills drastic. Destructions of coastal ecosystems in shallow coastal sea areas are often irreversible. It is also important to understand, that if harmful substances are introduced to the vulnerable Baltic Sea they will remain there for a very long time. Many important bird areas are located near present sea traffic routes. It has also been noticed, that real damage to fish resources have often been underestimated during the course of official EIA-s. There are indication of 1000 (!) times greater real damage (according to the opinion of some experts of the State Committee for Natural Environment).

Perspective plans of economical development often do not consider the principles of sustainable development, among others:

- Ecological capacity of the region under consideration;
- Priceless historical and cultural values;
- Traditional economics of the aboriginal people;
- Public opinion.

That will cause several conflicts, most serious of which can be grouped as follows:

- Contamination of marine and coastal environment;
 - Contamination of human life;
-

- Protest by the local population (NGO-s vs. transport companies etc.)

One potential source of danger is oil spills. More than 2000 bigger ships are on route in the Baltic Sea at any time², while ship accidents, causing marine pollution become more probable. However, according to HELCOM material the probability of oil spills seems to be closer related to the safety level of the transportation and route than to the density of the traffic.

By now it is clear, that the type of ships involved in an accident causing oil pollution is closely linked to their construction. 75% of single hull tanker accidents caused oil pollution, whereas the same only was true for 15% of the accidents involving double hull tankers³.

There's a new computerized modelling technique to estimate the time available to combat oil spillages at sea and to forecast how long it will take till the oil reaches the shore. With the results of the new project HELCOM hopes to prioritize response actions in real time accidents to protect sensitive areas like breeding and spawning grounds.

Swedish Broadcasting Association (SVC) has shown, that 102 out of 700 tankers that have trafficked the Baltic Sea have been involved in what can be classified as serious damage or accidents that have threatened the safety onboard and the environment. Statistics from the International Co-operation Organisation for Harbour Control show



Maritime transportation conflicts are very often causing contamination of marine and coastal environment. Oil-spills are real disaster to waterfowl. Oil products from the spill of 17.04.2002 polluted over 30 km of the coast, including Ramsar Wetland site "Lebyazhye", where many thousands swans were staying on their migration stop. *Photograph by Oleg Bodrov*

² HELCOM Press release, Feb., 2001

³ HELCOM Press release, Feb., 2001

that ships older than 15 years are more frequently involved in serious damages and accidents.

One group of potential dangers is, however, violation of naval traffic regulations by ships. There are recorded incidences (data by Greenpeace from the Kadet channel in 2001) how ships violate the regulations even in areas with high traffic intensity. Recorded situations are connected with sailing against the general direction of shipping; failure to keep to the dividing line in the traffic separation scheme zone; entering and/or crossing the traffic separation zone improperly; sailing into the dividing lanes (crossing the middle line). The conclusion is that measures taken aimed at the safety of shipping are inadequate to protect the Baltic Sea coast from shipping accidents and oil pollution.

Measures, control and compromises. HELCOM's Declaration on the Safety of Navigation and Emergency Capacity in the Baltic Sea Area, Sept. 2001

In HELCOM's Declaration on the Safety of Navigation and Emergency Capacity in the Baltic Sea Area (known as HELCOM Copenhagen Declaration) a number of measures and initiatives are listed and described, all of them in compliance with international agreements and legislation of the European Community.

Measures, outlined and described in the Declaration, are following:

- To improve existing routing measures in the Baltic Sea Area

There are several measures, dealing with particular zones and areas, e.g. deep-water route NE of Gedser (DW 17 m) and the eastern part of the Gulf of Finland (amendments to the Traffic Separation Schemes and the establishment of a new deep water route in the eastern part of the Gulf of Finland are supported).

New routing measures in the Baltic in general were proposed (new routes for deep draught ships in and new traffic separation schemes for some dangerous and sensitive areas, etc.) as well as new routing and reporting measures in the Gulf of Finland (important points were to extend the existing routing system in the Gulf of Finland and to launch new mandatory routing and reporting system, including the establishment of a new Vessel Traffic Management and Information Service - VTMISS system). There are problems with deep draught tankers near Swedish South coast, also crossing schemes of 150.000 tonne capacity tankers with the passenger traffic between Helsinki and Tallinn half surf.

- To enhance the use of pilotage in high risk areas "Route T" and the Sound

Preparedness is declared to consider this issue within the framework of the IMO, also to work together within the framework of HELCOM.

- To adopt additional measures to ensure improved hydrographic services and to promote the use of Electronic Navigational Charts (ENC)
The mentioned additional measures, that the Governments of the Contracting Parties should ensure are:
 - developing a scheme for systematic re-surveying of major shipping routes and ports in order to ensure that safety of navigation is not endangered by inadequate source information;
 - covering the major and secondary shipping routes and ports by Electronic Navigational Charts (ENC);
 - Accepting Electronic Chart Display and Information Systems (ECDIS) as equivalent to paper charts in accordance with the revised Chapter V of SOLAS;
 - Commercial parties (e.g. national shippers and receivers) should make arrangements to the effect that ships with a draft of 11 metres or more, oil tankers with a draft of 7 metres or more, chemical tankers and gas carriers irrespective of size and ships carrying a shipment of INF cargo⁴ should carry ECDIS (Electronic Chart Display).

- To enhance the use of Automatic Identification Systems (AIS).

There are a number of activities needed to be carried on to achieve the current measure, including:

- establishing national, land-based monitoring systems for ships, based on AIS signals (a full monitoring of the Baltic Sea Area within A1 sea should take place before 1 July 2005);
 - establishing a common Baltic Sea monitoring system based on – and with access to – all national Baltic AIS monitoring systems;
 - providing the HELCOM Secretariat with specified and conformed AIS data in order to prepare annual reports containing reliable statistics on ships' traffic in the Baltic Sea Area as a basis for risk analyses;
 - establishing an expert working group with the purpose of facilitating mutual exchange and deliveries of AIS data.
-
- To support the actions of the European Commission to ensure maritime safety and pollution prevention.
 - EC and HELCOM should develop an agreement on technical co-operation between the European Maritime Safety Agency and HELCOM
 - The contracting parties should be ready to participate in a Memorandum of Understanding (MOU) for the setting-up of a European Platform for Maritime Data Exchange.

⁴ International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships

- To phase out the use of single hull oil tankers in the Baltic Sea Area.

The operation of ships which may not comply with the requirements of Regulation 13F in accordance with Regulation 13G(4) (MARPOL 73/78) should not be allowed. Ships whose entry have been permitted on the basis of the provisions of paragraph (5)(a) of (5)(b) of the Regulation 13G, should be denied to enter the ports or offshore terminals from 1 January 2015 (based on the provisions of paragraph (8)(b) of Regulation 13G). Also it should be requested that orimulsion should be carried in double-hull tankers.

- To carry out port State control on the basis of either the *1982 Paris Memorandum of Understanding on Port State Control* or the *Council Directive 95/21/EC*, as amended:
 - by urging the Governments of Estonia, Latvia and Lithuania to take appropriate steps in order to become full members, as quickly as possible, to the 1982 Paris MOU;
 - to urge the maritime industry, in particular charters and cargo owners, to make use of the results of port State inspections as inserted in the EQUASIS Database and thereby effectively apply the principles of the Maritime Industry Charter on Quality.
- To investigate the benefits from designation parts of the Baltic Sea Area as a Particularly Sensitive Sea Area (PSSA).

The existing maritime safety measures and the need for additional ones shall be analysed by 2003 by the Sea-based Pollution Group of the Helsinki Commission with a view to further promoting such measures through a possible designation of certain areas in the Baltic Sea as PSSA-s.

*At its meeting in February 2003, the governing body of the **Nordic Council**, the co-operation organisation of the Nordic parliaments, stressed the seriousness of the risk of oil catastrophes in the Baltic Sea ensuing from the presence of supertankers without ice certification. The Council is also working with Member initiatives to have the Baltic Sea classed as a "particularly sensitive sea area", and concerning possible oil catastrophes on the Baltic Sea. There is very much concern for the future of the Baltic Sea.*

These issues are also of interest to the general public, seeing that they affect the living environment and business and industry on and around the whole of the Baltic Sea. Information on tangible facts may contribute to improved safety at sea and to compliance with environmental requirements. The economic and ecological consequences of a possible oil catastrophe on the Baltic Sea are impossible to foresee, but they may be even more serious than those resulting from the events off the Spanish and French coasts.

- To promote a safety and environmental culture through the establishment of a common procedure for the investigations into marine casualties.

Nonconformities of the International Safety Management (ISM) Code should be identified, while the findings of investigations of safety or environment related occurrences on board a ship and marine casualties should be distributed to the maritime industry via IMO with the aim to improve safety management systems applied.

- To ensure a list of emergency measures, e.g. adequate emergency capacity (fire-fighting, emergency lightering and emergency towing capacities); places of refuge; adequate response capacities at sea.
- To urge the Governments of the Contracting Parties to co-operate and assist each other during shoreline clean-up operations.

CCB position on the development of new oil terminals and harbours in the Baltic

Particular attention must be paid to newly emerging high-capacity terminals (where problems with EIA-s may occur) in fragile areas, e.g. the inner part of the Gulf of Finland. **CCB has pointed out following views:**

- Primorsk oil-terminal is a very inappropriate location of a new oil-terminal in the Baltic Sea Region, because it is in a very enclosed and shallow bay of the Baltic Sea, with many nature conservation values, which are threatened by the oil-terminal activities.



Primorsk oil terminal is situated in a shallow and enclosed part of the Gulf of Finland, that is increasing the potential threat to the nature and environment. In the background you see Beryozovy Islands, a RAMSAR area. *Photograph by Green World.*

- Oil transport in winter time (this part of the inner Gulf of Finland has ice-cover for several months) with strong ice-conditions lead to great risks for possible oil-spill accidents.

- Primorsk and Ust-Luuga are very unsuitable locations from an ecological point of view. Primorsk threatens the values of a RAMSAR area with possible oil-spills. These terminals threaten the very small and not very vital population of Ringed Seals in Gulf of Finland (population about approximately 150 specimen), especially in February and March, when the pups are born on the ice of the Northern part of the Gulf of Finland (Vyborg Bay and around Primorsk). Another threatening period is in April-May when Ringed Seals are hauling out on the ice for shedding. Potential oil spills from the Primorsk harbour shipping is a threat for the Ringed Seal population. The Luuga River is also very valuable as a wild salmon river.

CCB position in context of new industrial and transport development of the Luuga Bay shore are:

We are worried about the threats to the International Nature Reserve (Kurgalsky peninsula) and to the Luuga Bay ecosystem from the planned industrial expansion.

We think that the Luga Bay should be proposed as a Particularly Sensitive Sea Area (PSSA), i. e. an area that needs special protection through actions of the International Maritime Organisation (IMO) because of its significance based on recognised ecological values. According to the IMO rules the shipping activity can be restricted in a PSSA to preserve a valuable wild life.

We propose to conduct a public hearing on the proposed project in St. Petersburg, taking into account the significance of this project for sustainable development of the Baltic Sea Region and environmental importance of the “Kurgalsky Peninsula” Wetland as well as for the combined (aggregated) impact from other installations in the Luuga Bay area.

We propose that an Environment Impact Assessment (EIA) will be elaborated for the planned project by an international and credible consulting company, taking into account the ecological values we have mentioned. The conclusions from the EIA should be presented and discussed at a public hearing.

- The oil pipeline construction through the Karelian Isthmus has resulted in clear-cutting of important forest areas for nature conservation and recreational activities for the population of St. Petersburg.

- CCB believes that a better alternative for development of the Primorsk region and the Karelian Isthmus would be to develop eco-tourist activities, where the potentials of the area can be used in a sustainable way.

CCB Statement

“Environmental Impacts Due to the Increased Density of Shipping in the Baltic Sea Area” - HELCOM/IMO/EU Workshop in Rostock-Warnemünde, Germany, 11-12 March 2003

Coalition Clean Baltic (CCB) views on measures to avoid adverse “Environmental Impacts due to the increased density of shipping in the Baltic Sea”

Coalition Clean Baltic welcomes the German initiative to organize a meeting of experts from around the Baltic Sea so as to actively contribute to the reduction of environmental risk posed by shipping in this unique and vulnerable sea.

The challenge to handle the new shipping situation in the Baltic Sea that has developed the last years, e.g. because of the expansion of oil-shipping for export of Russian oil through the Baltic Sea, is of crucial importance for the protection of the Baltic Sea environment.

Baltic Sea as a PSSA

The Baltic Sea is a sensitive sea area that needs stronger actions for environment protection than other sea areas. The whole Baltic Sea, also including the Belt Sea and Kattegat should be designated as a PSSA.

The political prerequisites for development of strong protection measures from impact of shipping and the oil-business have never ever been better. The possibility to make a joint application from all Baltic Sea Region countries for the Baltic Sea as a PSSA must now be made.

CCB especially welcomes the idea of designating the Baltic Sea as a Particularly Sensitive Sea Area (PSSA). We strongly support the proposal submitted by WWF to HELCOM HABITAT 4/2003, presenting the need for the whole Baltic to be included within the future PSSA. The developing system of Baltic Sea Protected Areas (BSPA), the proposed additional BSPAs, Important Bird Areas, Natura 2000 sites and other areas with designated nature conservation status should form core areas in future PSSA. Additional protective measures, supported e.g. by NGO Stockholm

Declaration in October 2001, such as improved routing, mandatory pilotage, reporting system for certain vessels and increased emergency capacities in some parts of the Baltic could be introduced.

Ballast Water Management

We would like to highlight that the transfer and introduction of alien aquatic species poses a great threat to the biodiversity of the Baltic Sea. Over the past twenty years, a growing number of new species have been transported into the Baltic Sea, mainly introduced by release of ballast water from large ships entering the Baltic Sea. Because of the character of the Baltic Sea, as being the second biggest brackish sea in the world, the Baltic Sea is a sensitive sea area that needs stronger actions for environment protection than other sea areas.

Creation of PSSA in the Baltic Sea forms a good possibility to adequately address issue of prevention of alien species introductions and be used to develop a legally binding ballast management strategy for the whole region.

There are already available international guidelines for the control and management of ships' ballast water to minimize the transfer of harmful aquatic organisms and pathogens, elaborated by the International Maritime Organisation (IMO Resolution A.686(20) and being developed into the new IMO convention.

Measures to minimise the risk of introducing harmful aquatic organisms and pathogens from ship's ballast waters and associated sediments should also be addressed at the workshop.

HELCOM and EC should take initiative for introduction of *Regional Ballast Water Management Regimes* for the Baltic Sea, within the MARPOL Special Areas concept. The aim of such management should be to get a registration and control of all ships with ballast water entering the Baltic Sea

Such management could include components as:

- mandatory registration and reporting on ballast water status for all ships entering ports in the Baltic Sea;
- mandatory permission procedures from national authorities, for ships that intend to release ballast water in territorial waters and in the economic zones (EEZ).

LUKOIL Company: Imitation of a Good Image Plans for oil extraction outside Kaliningrad in the Baltic Sea

The article is prepared within the framework of the STOP D6! campaign and the international project “Baltic Offshore Oil Exploration Watch: NGO cooperation and public participation concerning cross-border environmental problems of off-shore extraction in the Baltic Sea”

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Introduction

In Kaliningrad region, plans for a hazardous industrial project of oil extraction on the Baltic continental shelf, at the D6 oilfield, are developing. While not yet operating the project has exposed many political problems of Russia, from weakness of the newly established Russian democracy, indicated by the authorities failure to accomplish the regulations, hiding information from the public and politicians' disrespect toward the public opinion. The European Union is to encounter all these problems as Kaliningrad region is getting within it.

The D6 project is backed by one of the largest Russian oil companies, LUKOIL (represented by its affiliated enterprise LUKOIL-Kaliningradmorneft). Any smaller Russian oil company would have never been able to organize such a significant pressure to the government, ministries, local authorities, and the mass media in order to obtain the governmental approval to implement its project.

The project of the development and exploitation of the D6 oilfield, nearby the Curonian Spit National Park, a UNESCO World Heritage site, is a source of

great hazard to the unique natural site, to the extent of a loss of the National Park in its present conditions. LUKOIL has been impeding the objective public discussion on the D6 project by all possible means. In regard with violations over the laws, Ecodefense! and Baltic Resource Information Center have already filed suits against LUKOIL.

The situation clearly indicates how easy it is to violate the law when the big business controls the governmental system which, hiding behind economical arguments, helps conducting hazardous activity rather than regulates it. There are quite democratic laws in Russia, but they only work if the big business interests are not involved. It rarely happens; therefore it would not be enough to bring the EU and Kaliningrad region legislations to the harmony, it is necessary to make the legislation work.

The D6 project has not started implementing yet but has already indicated how weak the Russian democracy is, how powerful the big business control over the democratically elected leaders and the mass media is, how indifferently Russian businessmen and politicians treat the public opinion and the laws.

The European Union has a powerful linchpin for pressuring Russian commercial structures striving for the European markets, and LUKOIL is among those. EU must clearly explain to those companies that disrespect to the legislation and the democratic citizens rights (for instance, right for the access to information) would impede their activities on the EU markets. In the case when the EU would prefer not to consider the problems mentioned above, it will get within its borders such a Kaliningrad region which does not recognize democratic behavioral norms, which poses environmental risks, where corruption and lawlessness, as a result of big business's affect over the society, are flourishing and spreading over the rest of Europe.

I. The project of oil extraction at the D6 oilfield on the Baltic shelf (1)

The Kravtsovskoe (D6) oilfield, located on the continental shelf of the Baltic, is the largest one in Kaliningrad region. Kravtsovskoe oilfield was discovered in 1983. The sea depth at the site is 27-30 meters. The explored deposits are estimated as 24 million of tons. Distance from the D6 site to the Curonian Spit coast is 22,5 km, to the closest port of Pionersky town – 46 km, to the investor's coastal base in Izhevskoe village – 116 km.

The license for exploitation of the oilfield was issued by the Ministry of natural resources to the LUKOIL oil concern affiliated enterprise LUKOIL-

Kaliningradmorneft. The aim of the enterprise (investor) is the industrial development and exploitation of the oilfield as well as sale of the extracted hydrocarbons.

The project of oil extraction at Kravtsovskoe oilfield demands the construction of the following designed units:

- Offshore ice-proof oilrig purposed for simultaneous drilling and year-round exploitation of productive wells;
- Offshore underwater pipeline for transportation of the extracted product (mixed oil, water and gas) from the rig to the shore, 45 km long.
- Onshore oil-collecting site Romanovo (including facilities for dividing the mix and purifying oil, and a subsidiary unit) and a system of pipelines, to transport purified oil from Romanovo site to the operating terminal in Izhevskoe village, 37,9 km long and digged down 1 meter.

It is planned to extract about 600,000 tons of oil per year at the D6 site by the end of 2003 (700,000 tons a year are extracted in the region today). The investor company invests \$120 million to the exploitation of the oilfield. Constructing works at the oilrig are estimated for 8 months, at the underwater oil pipeline for 7 months, drilling of wells for 72 months. Exploitation will be conducted for 25-30 years.

II. The Curonian Spit National Park – a subject of international protection

The D6 oilfield is located 22,5 km away from the coast of Curonian Spit National park, the subject of the UNESCO World Heritage. The Curonian Spit is inscribed on the list of the UNESCO World Heritage as an international (Russian-Lithuanian) site (2).

The Curonian Spit is a narrow strip of sand, from 350 m to 4 km wide, 92 km long, stretching out between two water bodies, The Baltic and the Curonian lagoon.

Criteria of the UNESCO World Heritage site

The uniqueness of the Curonian Spit is, in particular, in the fact that it corresponds practically all the criteria of a UNESCO World Heritage site:

- The Curonian Spit formed no more that 6,000 years ago as a result of activity of glacier, sea and rivers streams, *«represents the basic stages of the Earth's evolution, including the evidences of ancient life, significant geological processes in the evolution of the earth's surface forms, essential geomorphological and physiographical peculiarities of landscape»;*

- High biodiversity caused by the combination of various landscapes, from desert (dunes) to tundra (upper wetland), gives *«an idea of important and lengthy processes in evolution of land, river, coastal and marine ecosystems and communities of animals and plants»*;

- *“Presents a unique natural phenomenon or an area of exclusive aesthetical value»*: the Curonian Spit is a biggest sand body of the Baltic sand spits complex which has no analogues in the world. The location and relief of the Spit are unique. The most significant element of the Spit’s relief is a continuous line of white sand dunes, 0,3 – 1 km wide, about the most highest in the world (up to 68 m), which stretches along the peninsula for 70 km;

- *«contains natural habitats, most representative and important for the nature conservation, including those where the endangering species are preserved, those of outstanding international importance in terms of science and nature conservation»*: due to its geographic location and orientation from northeast to southwest, the Spit serves as a “bridge” for many species of migratory birds that fly from northwest areas of Russia, Finland and the Baltic States to the Central and Southern

Europe. From 10 to 20 million of birds fly over the Spit in spring and autumn every year; many of them stay here for rest and feeding. As migratory birds are concentrated at the Curonian Spit in such huge amounts, it gains a specific importance in the chain of protected natural areas on the migrating route from the White Sea to the Baltic. There are many endangered and rare species, included to Red Books of Russia, Europe and the world, among the birds flying over the Spit.



Over 200 years ago human economic interventions on the Curonian Spit led to the destruction of a blanket of forest, the only factor helping to restrain the sand dunes. Bared sand started moving; roads, villages were covered with sand; the bay and the Memel port were loomed over the sand attack. However, activities to stop the moving

dunes were launched, including grandiose large-scale efforts on planting the forest and construction of the protective coastal bank, a kind of dune, which prevents access of sand from the sea, and helped save the Spit. Thus, the unique natural anthropogenic complex presents an evidence of overcoming the aftermaths of an environmental catastrophe that was human fault.

Existing hazards: oil extraction on the Baltic shelf, washing away by sea streams, unregulated tourism (3).

The fragile world of the Curonian Spit is attacked by the natural forces: the sea, once created the Spit, is now bringing not enough “constructing materials” to reinforce the peninsula washed away by streams and storms. During strong winter storms the sea breaks into the Spit in the most narrow and low-lying areas up to the bay, and chances for the Spit’s body to be washed away appear periodically.

In case of possible oil pollution of the sand coast of the Curonian Spit there is the only method of cleaning them up, removing the polluted sand. In this case the natural shortage of sand alluvium will be increased in many times and can threat the very existence of the Spit.

III. Unconsidered risks and hazards to the sustainable development of the Baltic region

The project of oil extraction at the D6 oilfield threatens the sustainable development of the Baltic region:

Potential transboundary problems(4-6)

1. The project of oil extraction at the D6 oilfield, located 22,5 km from the Curonian Spit coast, brings the potential environmental hazard of international scope, particularly for the Curonian Spit National Park, a subject of international protection, inscribed on the UNESCO World Heritage list (7).

2. In relation to plans of doubling the oil extraction capacity after the D6 oilrig starts functioning, and, correspondingly, increasing in amounts of oil transited through the oil terminal owned by Lukoil-Kaliningradmorneft, the risk of oil pollution in area of the Gdansk bay and, thus, the Baltic proper.

3. In case of an accident on the oilrig, located nearby the Lithuanian border, the oil spills can reach Lithuanian territorial waters and the coast. The project documentation does not provide for any activity regarding the transboundary pollution and fulfillment of the international Convention on transboundary pollutions (1, 8).

Insufficient risk assessment of the project

1. The project considers the situation when one of the wells gets out of the control as the worst emergency situation possible. In accordance to the project

documentation, there will be 20 operating wells on the oilrig. In fact, destruction of the oilrig and a loss of control over all the wells must be considered as the most serious emergency situation possible (8, 9).

2. Risk of destruction of the Curonian Spit is not taken into account: in emergency spillage cases, the only possible method to clean up the sandy coast will be to remove the oil contaminated sand out of the coast (10).

3. Emergency oil spillages combating action plan is considered for good weather and day light conditions and will not be effective in terms of storm, intensive precipitation, bad visibility (8).

Hazards to the sustainable development of the Kaliningrad region

1. As the worst damage that can be caused by the possible accident one must consider a loss of the Curonian Spit National Park, economical value, e.g. tourist of which must be estimated and included to the profitability assessment of the project (9, 11).

2. The project does not take into account the losses of fishing industry, related to the loss of fishing activity in South-East Baltic Proper (Fishery Sector 26) that leads to a loss not of fish only, but of several hundreds of jobs, even in case of accident-free operation of the oilrig (12, 13).

3. The project does not estimate the losses relating to a loss of recreational attractiveness of the area; the development of the sustainable tourism, e.g. implementation of the Kaliningrad Region Resorts and Tourism Development Governmental Program for 2003-2010, is threatened. (14).

IV. Imitation of public hearings

The public discussion of the D6 project environmental impact assessment (EIA) materials were held in Kaliningrad from April 24 to June 3, 2002, in terms of blatant pressure from Lukoil-Kaliningradmorneft. The discussion process indicated that Lukoil company, while indicating its transparency and democratic nature, is not really able to dialogue with the public.

The public discussion procedure, being strictly regulated by the Russian legislation (15, 16, 17), was carried out by Lukoil-Kaliningradmorneft management with a number of brazen violations, which finally made the public representatives go to court to recognize the public hearings as falsified and documents adopted in the course of hearings as illegitimate (18, 19).

The public participation procedure is provided by the Russian Federation legislation (15, 16, 17). The law determines how and when to inform the citizens about the beginning of the public hearings process, about the access to the materials to be

discussed, about the date and place the public hearings to be held; the law states that a customer must in a certain period of time provide the public access to the materials of discussion; the law sets up how and in which way to take into consideration the public comments and suggestions.

The Lukoil management has shortened almost into half the legal time provided to the citizens for getting acquainted with the project materials and developing comments and suggestions; it has also disseminated incomplete and often blatantly unreliable information (4).

Not only Lukoil failed to provide access to the materials of discussion, but also created such insurmountable obstacles that only 7 persons managed to get acquainted with the EIA materials, including four NGOs representatives and two journalists who have experience in obtaining information. For the general public familiarization with the project, Lukoil has offered the 26-page booklet claimed as the "EIA materials" (1), which is a dissemination of blatantly unreliable information and violation over the Russian legislation (15, 16, 17, 20).

The individual citizens' and NGOs' requests in regard with an access to the EIA materials have been left by Lukoil management without response.

Lukoil management has enacted internal instructions stating that the D6 EIA materials contain commercial secret information (21, 22), and on these grounds has set up strict regulations of accessing the EIA materials. This defies the Russian federation legislation according to that environmental information cannot be secret, and EIA materials must be prepared considering principles of transparency and openness.

The public discussion was not organized in the Kaliningrad region districts where the project is to be immediately implemented, thus, residents of those districts, which will first be negatively affected by the project implementation, have been rejected to participate in environmentally sound decision making process.

In public hearings held in Kaliningrad 167 people, one third of those represented Lukoil staff and the project developing experts (47 persons) (23).

There was no minutes taken at the public hearings sessions; the assembly has no ability to approve the program and the speaking time were already planned in advance. In fact, the role of the public was reduced to simple listening to experts who contributed to the project development.

Most participants were not allowed either to speak out, or to get acquainted with the minutes that was written and backdated on the base of audio record taken at the hearings sessions.

Such organizing of the public hearings deprived citizens' opportunity to timely obtain information relating to their rights for favorable environment and for conducting the

public environmental monitoring over industrial operations, guaranteed by a range of Russian laws from the Russian Federation Constitution (4).

V. Dirty PR against the public

Since April 2002, Lukoil-Kaliningradmorneft initiated an intensive hounding of nongovernmental organizations criticizing the D6 project, in particular, Ecodefense! group as a most consistent critic, in the mass media. The major “information”-spreading source is Kaliningradskaya Pravda, a newspaper set up by Lukoil-Kaliningradmorneft. Some other mass media have also been influenced by the big business. Their journalists demonstrate intolerance toward the other-minded people, describing NGOs activity in abusive manner, fabricating their incomes, transparently hinting on pushing interests of imaginary competitors, up to charges with intentional destruction of the national economy, espionage and treason.

In September 2002, the organized hounding forced the group of nongovernmental organizations to make a statement to the Kaliningrad mass media in support of Ecodefense! group signed by about twenty NGOs and published in a number of the mass media resources (24). “We express our concerns in regard with well-coordinated information-spreading campaign against the leading environmental nongovernmental organization in the region. NGOs are bricks to form the civil society. Another important component is the mass media whose main task is to provide citizens with an opportunity to have reliable information on all citizenly significant problems. We believe that the residents of the region have their right to know the environmentalists’ opinion and position, their detailed argumentation”.

Noticed should be that even in circumstances of pressure and bribery, there are many journalists in Kaliningrad region remaining aware of the role of the mass media in the process of the civil society development. The most independent are broadcasting companies; there have also been fruitful and honest cooperation with many newspapers and TV-companies.

VI. The frustrated public environmental impact assessment

Local governments of the districts where the project is to be implemented were caught in the same influence of Lukoil-Kaliningradmorneft as the journalists of some mass media. These districts governments refused the Ecodefense! and Baltic Resource Information Center NGOs the registration of the public environmental impact assessment on various illegal pretexts, in spite of the prosecutor’s decrees. Lukoil management doesn’t stay indebted when a need arises to “protect” the local authority from the public: when Baltic Resource Information Center filed a suit against Zelenogradsk district government for the unfounded refusal to register the public EIA. Lukoil submitted to the court a petition to participate in the process and hired a lawyer for a head of the government (25).

In accordance with paragraphs 23-24 of the Federal law “On the environmental impact assessment”, in September 2002 the Kaliningrad Regional Environmental Public Political Movement registered the public EIA of the D6 project materials. According to the legislation, immediately after the public EIA is registered independent experts must be provided with the project materials and get down to their assessment. Nevertheless, three months have gone in communications via correspondence, telephone conversations, meetings with several Lukoil representatives. In December 2002, Lukoil refused to provide the independent experts with the D6 project materials for assessment, claiming the materials contain commercial and governmental secret information (26).

Conduction of the public EIA on the D6 project was frustrated: in accordance with the Russian Federation legislation, the public EIA can be carried out either before the governmental EIA, or at the same time as it (16). The governmental EIA of the D6 project was completed by December 22, 2002.* Lukoil management succeeded in dragging out the time in order to avoid providing the public with the project materials, inventing one excuse after another. It is clear the company is trying to hide significant shortcomings of the project mentioned in this report (chapter III) and recorded in details in the “Ecodefense! group Statement from June 3, 2002” (4).

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*The governmental environmental impact assessment of the D6 project started on October 22, 2002, and lasted for two months, a very short period for such a large project. Such a short space of time indirectly indicates the pressure Lukoil company puts upon the Ministry of natural resources.

Kaliningradmorneft.”

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26. Letter of the Lukoil-Kaliningradmorneft director general deputy from December, 2002, to the Kaliningrad Environmental Public Political Movement chairman.



Curonian Spit National Park - UNESCO World Heritage site. *Photograph by Kazimieras Mizgiris AFIAP*

Appeal of ECOs concerning the off-shore oil extraction project D-6 in the Baltic Sea. This appeal was first submitted by the CCB Board and later the same appeal was endorsed by 57 NGO-s from Europe and USA in Kiev, May 2003. The same requirement was also endorsed by participants from the 3rd Baltic NGO Forum in Turku, Finland, May 8-11, 2003.

STOP OIL EXTRACTION IN THE BALTIC SEA

To the Governments and Parliaments of the Baltic Sea Region countries (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden), the European Commission, Council of the Baltic Sea States and Baltic Marine Environment Protection Commission (Helsinki Commission)

Kiev, Ukraine

24 May 2003

International Conference of ECO-FORUM parallel to the 5-th Pan-European Conference of Environment Ministers "Environment for Europe"

PAN-EUROPEAN COALITION OF ENVIRONMENTAL CITIZENS ORGANIZATIONS

APPEAL CONCERNING THE OFF-SHORE OIL EXTRACTION PROJECT D-6 IN THE BALTIC SEA

Taking into account the situation surrounding the controversial D-6 (Kravtsovskoye) oil extraction project being developed in the Kaliningrad region, Russia very close to the Lithuanian-Russian border on the Baltic Sea shelf by Russia's largest oil company, LUKOIL, representatives of Pan-European Coalition of Environmental Citizens Organizations declare that development of the D-6 (Kratsovskoje) oil deposit:

- contradicts and endangers the principles of sustainable development for the Baltic Sea region as settled in numerous international agreements and documents: Baltic Agenda 21 for Baltic Sea Region, accepted by the Ministers of Environment from all Baltic countries in 1999; Convention for the Protection of the Marine Environment of the Baltic Sea (Helsinki Convention); the Convention on Environmental Assessment in a Transboundary Context (Espoo Convention);
- poses a high risk of environmental pollution, accidental oil spills and other negative impacts during exploitation of the D-6 project;



Protest campaign against oil extraction in D-6. *Photograph by Saulius Vytas Piksrys*

- threatens to pollute the Baltic Sea and the Curonian Spit National Park – a UNESCO World Heritage object – which may affect various countries in the region, and especially the coasts of Russia and Lithuania;
- poses a serious threat to sustainable tourism, nature protection and environmental projects in which millions of dollars have already been invested by local municipalities, national governments and international donors;
- has already led to numerous violations of Russian legislation by LUKOIL thus limiting public access to information and participation in decision-making that threatens development of civil society in Kaliningrad region;
- may slow the process of the democratic and sustainable economic development of the Kaliningrad region that will soon be inside European Union borders. Disrespect for democratic norms, environmental risks and international agreements is not acceptable in the context of Russian - European Union dialogue about cooperation.

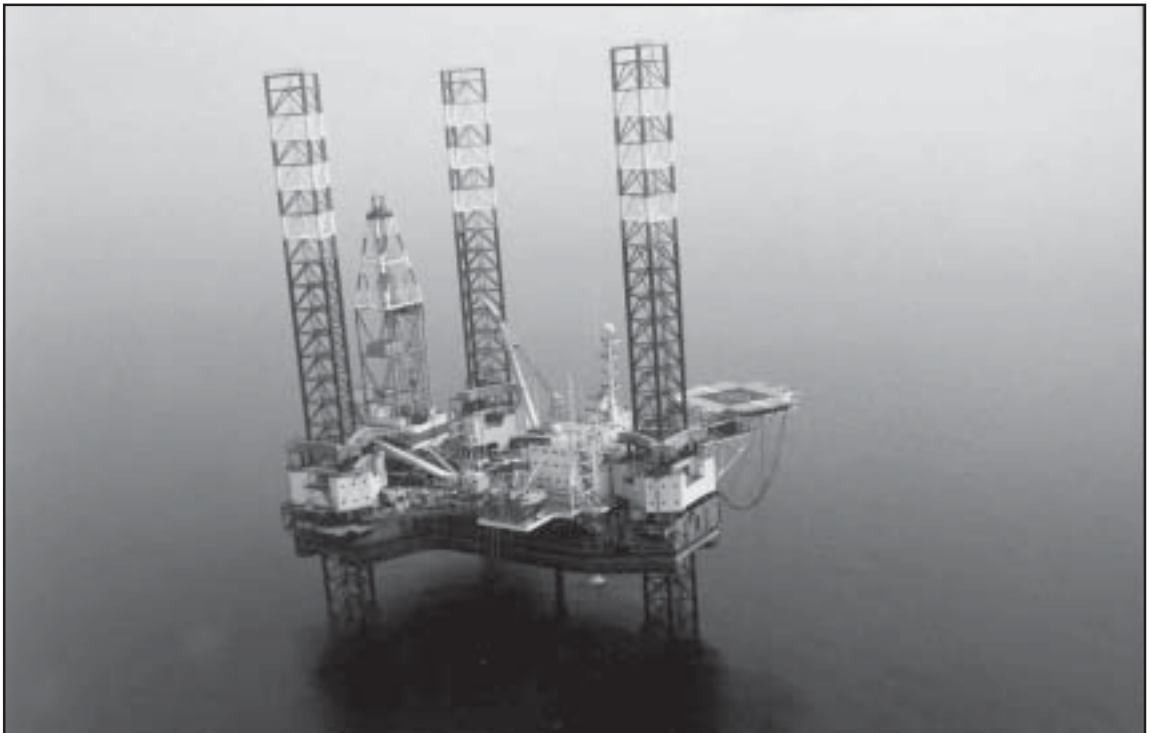
We, the undersigned representatives of Pan-European Coalition of Environmental Citizens Organizations, call for:

- the Governments and Parliaments of the Baltic Sea Region countries, Council of the Baltic Sea States and Baltic Marine Environment Protection Commission (Helsinki Commission): to start negotiations for an international moratorium on oil extraction on the Baltic Sea continental shelf by all Baltic Sea region

countries, and to set up strictly binding uniform environmental standards for oil extraction in the Baltic Sea.

Specifically we would like to address the Russian Government:

- to disclose EIA materials and the conclusions of the Russian Ministry of Natural Resources concerning D-6 project, and to inform all neighbouring countries of all possible impacts arising from this project;
- to conduct Environmental Impact Assessment for the D-6 project according the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) with involvement of all interested stakeholders;
- to stop implementation of the D-6 project until results of the EIA in transboundary context are known.



D-6 oil exploration platform, situated in the Baltic Sea, adjacent to Curonian Spit.
Photograph by Kazimieras Mizgiris AFIAP

Energy Versus Diversity ***Protection of river ecosystems in Latvia***

Janis Brizga, CCB-Latvia

Introduction

During the most recent years the threat to the river ecosystems in the Baltic Sea draining basin has been growing due to new trends in construction of small hydropower plants (SHP).

Construction of hydropower plants is considered to be very good investment in sustainable energy systems. Hydropower is a renewable energy resource, that does not contribute much to air pollution, climate change etc. However, such constructions usually have adverse impact on river eco-systems and endangered species, such as naturally spawning Baltic salmon and Brown trout populations and others.

This issue is getting more and more acute in most of the countries around the Baltic Sea, especially on the Eastern coast. Several CCB member organisations are actively working on this issue, e.g. Lithuanian Green Movement, CCB-Latvia/VAK, Swedish Society for Nature Conservation, Klub Gaja (Poland), Finnish Association for Nature Conservation.

Plans for development of small hydropower plants

Latvia is also part of this trend. In 1998 the new Energy Law came into force. One of the features of this new legislative act (141 Art. 1 paragraph) was support of development and increase in alternative energy production, including small hydropower plants (SHP). It introduced the governmental subsidy programme for alternative energy which would be produced and delivered to the electric network. The government's intention was to pay a double price for each kWh produced during the first 8 years of production. Main motivation factors for government to subsidise SHP were:

- increase in sustainable energy production as a part of the goal to reduce climate change;



Vibrupe - one of the Latvia's small rivers which has been canalised.
Photograph by Janis Brizga



Jugla - canalised river, coming from the hydropower plant.
Photograph by Janis Brizga

- hydropower is a renewable energy resource;
- regional development, initiatives of local economy and employment;
- development of tourism and landscape management - old dams and water mills are a part of traditional landscape.

There are more than 1000 rivers in Latvia forming a net throughout the country. 777 rivers are longer than 10 km, while 15 of them are more than 100 km long. The landscape in Latvia is very flat; the highest point being only 311 m, therefore hydropower energy production is not efficient comparing to other countries and, in general, can mainly survive under the current subsidy programme.

This new legislation dramatically increased the number of initiatives to reconstruct the old and build new hydro power plants. These activities endanger important river ecosystems, including wild fish populations by:

- fragmentation: movement of animals, plants and seeds is interrupted;
- modification of river flows;
- distraction of rapids, sand drifts and old riverbeds;
- degradation of rivers.

Year 2002 was crucial for the development of small hydropower plants in Latvia, because after 2002 the favourable subsidies and double tariff will no longer be provided. Therefore the owners of small hydropower plants strive to get a license for the construction before the end of this year.

NGO activities for protection of Latvian rivers

As a result of the above activities a new coalition of NGOs was built, including WWF-Latvia, Environmental protection club of Latvia (VAK) and Anglers association to resist the development of small hydropower plants, draw attention and increase public and decision makers' awareness of the possible threats. Latvia's Coalition compiled a list of rivers and stretches of rivers, which need to be protected from constructing new hydropower plants. This list was the base for amendment to the "Fishery Law".

The NGO coalition prepared a proposal for the new Cabinet of Ministers regulation: *List of the rivers (or stretches of rivers) protected from construction of new and renovation of old dams and hydro power plants*. This new part of the legislation was prepared in close cooperation with the Ministries of Agriculture and Environmental protection, which helped to develop the document and to submit it to the government.

New legislation for protection of Latvian rivers

The new legislation was passed to the Cabinet of Ministers in the beginning of 2002. As the result, the new regulations contain 214 rivers / stretches of rivers (in the original NGO list there were 240 rivers / stretches of rivers), which are now under protection, i.e. it is prohibited to construct new dams. It was one of the most successful NGO campaigns in Latvia during the last years. It also demonstrated that 'greening' of the existing legislation is one of the key areas where NGOs can show their capacity, making it more transparent and ensuring public participation.

At the beginning of 2002, totally 103 hydropower plant construction was reached and functioning in Latvia. However, the government still had 44 new applications from which only 8 were located on the rivers protected by the new regulations. Now there are about 110 small hydropower plants in Latvia which are working and receiving the perverse subsidies.

Even though the new legislation drafting campaign was very successful and showed NGO's ability to solve crucial environmental problems, the fight is not over. Now the task of NGOs is to be a watchdog of the implementation of legislation and to help its enforcement. As we all know, this is the toughest part of the work.

Development of Hydropower as “Green Energy” – a Hot Discussion in Estonia

Peeter Vissak, Estonian Green Movement

Hydropower, a renewable source of energy, that has been nearly forgotten in Estonia for about 30 years, has experienced kind of renaissance within the latest years. Although Estonia is considered to be quite “wet”, i.e. a huge number of watercourses can be found there, it must be mentioned, that the majority of these are small. Nevertheless there have been more than 700 watermills with more than 500 hydroturbines in Estonia before the World War II. Consequently small-scale energy consumption can be relied on local hydropower.

Contemporarily more considerations are needed to reconstruct the old mills, than the simple fact of their historical existence. Cost-effectiveness and available funds are the one side of the story, while the other side (connected to sust en has recently has caused certain misunderstanding among people, having been connected with nature conservation and renewable energy issues. There are several generations of environmentalists and dam constructors in Estonia, who have been convinced throughout their careers and lives, that waterpower is one of the most pure energy sources, considering direct impact to the nature. Recent standpoints about harmful effects of hydropower plants are different and it has been said out, that being renewable does not automatically mean being harmless. Naturally such declarations have caused conflicts.

As usual, utilitarian truth and practical solutions are laying somewhere between and both extremes should reconsider their dogmas for better implementation of nature conservation solutions in renewable energy production. Compromises should include a whole list of circumstances, e.g. indispensability of reconstructions, historically established impact of the old watermill, thorough EIAs and public hearings, certain compulsory elements as fishladders, socio-economic calculations involving jobs, income and alternative ways of avoiding human impact to the local nature etc.

The following articles will lighten some environmental problems of small-scale hydropower plant reconstructions and it may be considered as a typical case in Estonia. Although construction of the Nõmmeveski Hydropower Plant has now been stopped, as Lahemaa National Park has not given any permission to start the construction, the project is by no means rejected, i.e. negotiations and confrontation will go on.

Some facts and views concerning hydroenergy production in Estonia:

Maret Merisaar, Estonian Green Movement

A. Number of hydropower plants (HPP) in Estonia

Most of the small HPPs were closed in the 1960-ies , only 2-3 remained.

In 1997 Estonian engineers from AS Eesti Veejõud together with NOPEF and DriveTech International AB made an inventory of former HPP-s and selected about 20 that could be restored.

The first pilot project using Finnish hydroturbines (Waterpumps WP OY) was launched in Kamari (1999, 200 KW, annual output 1,5...1.7 million kWh), then Tudulinna (150 kW) and Joaveski (300 kW) Kaseveski, Tõrva watermill and Linnamäe are still under reconstruction. In addition 4 old stations with renovated old turbines are working (Saesaare, Leevaku, Kotka).

B. Hydroenergy potential:

Although there are about 7000 watercourses and streams in Estonia, only 400 of those are longer than 10 km and only 9 are longer than 100 km. Only 14 rivers have a flow rate exceeding 10 m³/sec (except Pärnu River with Q_w = 40 m³/sec).

Due to flat relief, the total technically usable hydroenergetic potential would be 25-30 MW.

At the same time the possible total number of HPPs could be very high:

- 1) 24-26 former HPPs, with total capacity 6 MW.
- 2) From the 700 former (pre-war) water mills about 200 (8-10 MW) could be restored + about 100 new water lifting regulators that were constructed during 1960-1990.
- 3) In addition, some 20 new locations for HPPs have been proposed by some earlier investigations.

C. Ecological considerations behind restoring old watermills and constructing new HPPs:

According to AS eesti Veejõud, the lakes behind the dams have a strong positive impact to the environment: aeration of water, wider recreation and fishery possibilities. Most of the mentioned sites do not need fish ladders as the migratory fish species do not use these small rivers.

Water damming in the old watermill sites for restoring the former landscape only can be too expensive for the new landowners, so the additional power production would make the process more beneficial.



Old derivation channel in previous Nõmmeveski hydropower plant.
Photograph by Kaja Riiberg

When restoring the previous HPPs or constructing the new ones, the situation is more complicated due to the required expensive fish ladders for migratory fish and the surrounding privatised territories that remain under water.

D. Some legal background:

The Energy Law adopted in 1997 by the Government of Estonia promotes the production of energy from alternative sources, as paragraph 28 in the Energy Law

obliges the monopolistic power producer Estonian Energy to buy the production from small enterprises with price equal to 90% of the private uses tariffs.

As the restoration of the old watermills needs 5-10 years of investments, it is important, that the Energy Law would not be changed .

The price of the energy produced from fossil fuel oilshale is growing rapidly – being 0.09 EEK/kWh today.

E. NGO Activities in Estonia

AS Estonian Energy started a “Green Energy” campaign, selling part of the energy with higher prices, and using the income for restoring alternative energy production. Part of that income also goes for the Estonian Fund for Nature.

Today most of the environmental NGOs in Estonia are involved in the campaigns related to the Climate Change Convention and demand more alternative energy in Estonia.

The Annual Bicycle tour of Estonian Green Movement introduced the Joaveski hydropower plant (the Loobu River) as a positive example of the energy production industry to more than 2000 visiting people in May 2002.

According to the specialists from the Lahemaa National Park, some experts from Estonian Ornithological Society have, for example, said, that the loss of some bird species resulting from the restoration of the Nõmmeveski hydropower plant is not significant, as this is not their only habitat in Estonia.

On a public discussion of the Pärnu River Watershed Management Plan the representative of the Estonian Society of Nature Conservation Pärnu Branch said, that Salmon restoration should not be a priority. He argued to forget this idea as this species was found here only a century ago.

There still are some voices speaking about the restoration of the hydropower plants from point of view of promoting the the “Biodiversity Convention”. Among them the NGO “Estonian Wildlife “ (Jaak Tambets et al.) should be mentioned.

The CCB Secretariat in Estonia should acknowledge the different views on hydroenergy to the public and be on the side of those who promote the “Biological Diversity Convention”.

The Story of the Planning of the Hydro Power Plant at the Nõmmeveski Waterfall on the River Valgejõgi

Kaja Riiberg

Nature protection specialist

Lahemaa National Park Administration

Introduction – Values of Nõmmeveski Waterfall

The well known Lahemaa National Park on the Northern Coast of Estonia has been founded on the basis on the former landscape protection area around the Nõmmeveski Waterfall on the River Valgejõgi. The waterfall is 1,2 m high and 16-17 m wide. It is located in a limestone canyon valley (470 m long) and is a most popular object for the tourists on this area.

Rare plants:

Lunaria rediviva (III category protected species)

Rare Birds:

Cinclus cinclus II category **water ouzel, dipper**

Alcedo atthis – II category **kingfisher**

Motacilla cinerea (III category) **gray wagtail**

Rare Mammals:

Lutra lutra (III category) **otter**

4 species of lichens from Estonian Red Book

Unio crassus **river mussel**

Salmon spawning area

Special microclimatic conditions, such as damp air, high temperatures in winter, no wind are favouring these species



Valgejõgi River flowing in the limestone canyon valley, downstreams of the Nõmmeveski waterfall.

Photograph by Kaja Riiberg

Chronology of the Hydropower plant story:

The former Hydropower Plant was built in **1924** and worked until **1960-ies**. Part of the ruins are still there as well as the old generator building.

Somewhere in 1998 the Loksa municipality financed an expert assessment on the environmental conditions for restoring the power plant. Due to high costs the interested group lost its interest. The documents are lost.

September 1999 The ruins were sold to joint stock company MARU:

September 1999 the Lahemaa National Park reacts with a newspaper article reminding the importance of the nature protection object and necessity to conduct EIA.

June 2000 Loksa Municipality issues project conditions for Nõmmeveski Hydropower plant ignoring the legal demand from the National Park to obtain a licence first.

In September 2000 the Harju County Environmental Service issued the licence for producing hydropower on Joaveski Waterfall on River Loobu (owned by AS MARU). Several conditions concerning the water flow rate set in the licence have been violated on Joaveski after that and these have been processed by the local environment inspectors.

March 2001 EIA for the restoration of Nõmmeveski Hydropower plant was started by Kalev Liiv.

17 August 2001 – after the third request a public hearing on the EIA is conducted and the EI Statement does not foresee any barriers for starting the construction activities.

31 August 2001 - Lahemaa National Park submitted written questions and proposals on the EIA. These are replied to in escaping manner and the proposals are rejected.

The Harju County Environmental Department considers the EIA not to be impartial and demand an additional expertise.

November 2001 Lahemaa National Park asks to stop the illegal engineering activities.

December 2001 – AS MARU submitted an application to the National Park asking for a their approval for reconstructing the power plant. The National Park does not approve the plan as this is in contradiction with nature protection prescriptions and regulations.

March 2002 - The Minister of the Environment, Mr. Heiki Kranich replied negatively to the letter from the Loksa Municipality which asked for a support for AS MARU. The Minister pointed out several problems and legal acts that would be contradicted to hydropower constructions: Law on Nature Protection, Regulations on the Nature Park, Law on the protection of coast and shores, Salmon Action Plan, Natura 2000 Network, lack of EIA meeting the legal requirements. Problems on a hydropower plant in Joaveski, contradictions with Loksa Municipality General Plan, Lack of agreement from the Lahemaa Nature Park,

April 2002 – Loksa Municipality board initiates the detailed planning with the aim to restore the old hydropower plant.

In spite of the valuable examples representing rich biodiversity, the Nõmmeveski object does not have sufficient legal protection status and, according to the Estonian legislation, the power plant can be restored. This will bring along a decrease in the amount of water in the waterfall and the rapids and inevitable danger for the rare biota.

In Estonian conditions, hydroenergy is not “Green Energy” despite of the ongoing joint campaign of Estonian Fund for Nature and Estonian Energy.

April 2003 - construction of the Nõmmeveski Hydropower Plant has still been stopped, as Lahemaa National Park has not given any permission to start the construction, nevertheless the project is not rejected and the confrontation will continue.

The most inconvenient aspect of this sad story is, that the Estonian Green Movement, The Estonian Nature Fund, The Tartu Students Nature Protection Circle and other NGO-s have never supported the appeals and statement issued by the Lahemaa National Park Administration.

Public authorities are not allowed to express their personal views or write letters differing from the official opinion. The area in Nõmmeveski should be given a status of single/separate nature protection object. This could provide sufficient legal protection from the construction activities.



Old dam on the Valgejõgi River, Nõmmeveski.
Photograph by Kaja Riiberg

Additional Comments by Jaak Tambets,
(former head of Nature Protection Department of the Ministry of
Environment)

- Hydroenergy will not solve the need for energy in Estonia, as the total potential of all Estonian rivers, excluding the Narva River, is only 1 per cent of total consumption of today. (The Narva river power plant in Russia gives four times more energy than the theoretical total potential of all Estonian rivers).
- If all environmental protection requirements are sufficiently met, the power production is not economically feasible. A fishladder construction is expensive and we do not have any properly functioning ones in Estonia.
- Construction of dams ruin the ecological quality of the river. About half of our 40 fish species need river sections with rapid water flow. There are not many suitable habitats for them. Damming of waters will:
 - A) overflow habitats
 - B) hinder the fish migration to spawning areas;
 - C) spoil the hydrological regime. During the periods with low water many stations collect water and lead it on the turbines only periodically. But e.g. the eggs of salmonidae that need to develop in the waterbody throughout winter need a lot of water rich in oxygen.
- Improving water quality in the waterbody does not improve its ecological quality in case the physical quality and water regimes already are spoiled. So there is a question, if money spent for water treatment is feasibly spent in case the quality is spoiled by other means.
- We always take examples from countries with huge potential of hydroenergy (Finland, Sweden, Norway) and do not look at the experiences of countries that are similar to us. For example in Denmark the last hydropowerplant was built in the end of the sixties. The hydroenergy potential of Latvia is much bigger than in Estonia, but even there a governmental act was adopted this year, prohibiting of building of dams on more than 200 rivers. Estonia, which considers itself to be very progressive, lags behind in this respect.
- Our commercial and hobby fishermen will be endangered aswell. Last year about 30 000 fishing licences were issued and in many areas commercial fishing is the only real source of income. Many fresh water fish species live in Estonian coastal waters and only spawn in the rivers (e.g. bream). While ruining the spawning areas in the rivers we endanger all those species. For example the Sindi dam on the Pärnu River creates about twenty times more losses to the fisheries than the potential electricity production would balance. Anyway, the

dam has a fish ladder. There are about 400 commercial fishermen fishing on the Pärnu Bay. We could initiate a good project for assessing the potential of fishing tourism together with competent foreign specialists, which for sure would show the laymanship of the hydroenergetic utopias from the point of view of economic development.

- Summarising: I have usually been quite moderate in expressing my opinions, but here we really miss the targets subordinating the public interest to that of a limited few and instead of improving the environment we are spoiling it. In Estonia the hydroenergy cannot in any conditions be called “Green energy” . Or my understanding on the green views is very wrong.