

To: The Uusimaa Regional Environment Centre
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Ref: Your request for statements on the EIA programme of the gas pipeline from Russia to Germany

ISSUE: WWF STATEMENT ON THE EIA PROGRAMME OF THE GAS PIPELINE FROM RUSSIA TO GERMANY

The topics listed below are those on which WWF Finland would like to see improvement on regarding the EIA programme of the gas pipeline. The topics are taken up basically in the order in which they are treated in the original EIA.

1. ALTERNATIVE TRANSPORTATION METHODS

The alternative gas transportation methods should be described in more detail and their benefits and drawbacks should be clarified as well as the reasoning why the chosen alternative would be the best. The alternative off-shore routings examined earlier as well as the possibility of a land-based pipeline should definitely be included in the EIA programme. Equally, the zero alternative, i.e. that of not constructing the pipeline at all, should be clarified and reported.

2. ALTERNATIVE SOURCES OF ENERGY

The alternative ways to produce the amount of energy corresponding to that of the gas to be transported should be presented and their environmental impacts should be described.

3. NUTRIENT CONCENTRATION IN THE SEDIMENTS

There are no clear plans in the EIA programme to map the nutrient concentrations in the seabed of the Gulf of Finland where the construction of the gas pipeline would require physical working of the seabed. Similarly, it is necessary to be able to assess, as closely as possible, the dissolving and drifting of nutrients, heavy metals and possible harmful

chemicals into the water column as well as the geographical extent and the ecological significance of these effects considering the surrounding ecosystem.

4. ANOXIC AREAS OF SEABED

There will be anoxic areas on the seabed along the pipeline route. Where, how extensive? How much hydrogen sulphide do these areas contain, and how widely will, according to the estimates, the hydrogen sulphide drift due to the currents in the examined areas? What are the estimated impacts of hydrogen sulphide on the biota?

5. BIOTA

Bird fauna. The water fowl are inadequately described in the application. In the tables describing the Natura conservation areas, there is information available on the nesting, resting and feeding areas of migratory birds. The constructor should present a summary and conclusions regarding the pipeline on the basis of this information in Chapter 4 of the EIA programme.

Fish. This chapter (4.3.4) requires significant improvements and more precision. It is missing all information on the possible reproduction, feeding and nursery areas of different species of fish. In addition, there are mussels and crustaceans listed among fish.

6. MARITIME TRAFFIC ROUTES

The routes and amounts of maritime traffic are presented on the basis of information of four days only (Chapter 4.5). An analysis of maritime traffic should, however, include all seasons as well as the monthly averages and peaks. The accident risks in the vicinity of the pipeline should be assessed using risk analysis methods (a sinking vessel would most likely break the pipe).

7. MINES, DUMPED MUNITIONS AND TOXIC SUBSTANCES

The locations of hazardous objects (Chapter 4.6) should be mapped in detail on the basis of expert information and the registers of public authorities and the use of the newest radar technologies. Similarly, the plans should include a presentation of the safety measures to be applied in case hazardous materials are met on the seabed during the construction phase.

8. OFF-SHORE CABLES AND EXISTING PIPES

There is a discrepancy here (Chapter 4.7) when compared to an earlier text which mentions more intersecting.

9. SHIPWRECKS

Chapter 4.8: Estimates by experts who specialise in locating shipwrecks should be used when calculating the numbers and locations of wrecks. The estimate given in the assessment that there would be only 4 possible wrecks nearby the pipeline does not sound realistic.

10. UNDERWATER NOISE

In Chapter 6 on page 21 there is a list of possible impacts. However, it is missing the creation of underwater noise, which is inevitable in the construction phase. Even though loud noise, like that resulting from explosions, is likely to be of short duration, the noise caused by the use of the gas pipeline (gas flow) is continuous and long-term. The impacts of this type of pollution on matters like the behaviour of fish must be studied, for example, in relation to the impacts of other gas pipelines already in use.

11. IMPACT AREA

Chapter 6.2: The need for a redefinition of the impact area must be clarified. In the graphical presentation by Ramboll/Nord Stream, dated 6 November 2006, all of the Gulf of Finland is marked to be within the range of indirect impacts. This is not the case in the actual EIA. The likely extent of the environmental impacts especially in the Gulf of Finland should be clarified with particular care. This is because the *relative* environmental impacts of the gas pipeline are greater in the Gulf of Finland than in the rest of the Baltic Sea, as the vertical and horizontal dimensions of the Gulf of Finland are less than those in the southern parts of the Baltic Sea. The exact locations of the land-based supply bases, the extent of the traffic caused by vessels moving between them and the pipe laying barges, and the environmental and socioeconomic impacts of this traffic must also be assessed.

12. METHODS USED

Chapter 6.3: The technological methods, source materials on which the assessments are based, and the models used for eg. estimating the extent of the environmental impacts, must be made public and described in detail. As it is, important references are missing from the text, and the list of references is meagre and on general level. "According to our previous experience" is not an acceptable way of referring to existing research results.

13. PLACEMENT AND DRIFTING OF DREDGED MATERIALS

Chapter 6.3.1: The estimate of a 1000 metre impact zone where the water would be impacted due to the working of the seabed sounds very rough, and there are not enough reasons or references presented. Instead of basing the estimates on new research results from the area, there are references to "previous experience of ours". There must be the capability to assess separately the impacts on the ecosystem by nutrients and toxins during the various phases of the construction work and in the different parts of the Gulf of Finland, like for example the increase in eutrophication and toxicity of fish. The principles concerning possible compensations must be agreed on in detail prior to commencing the construction work. The relocation of the dredged seabed materials must be shown in detailed plans; the relocation sites must not be in the vicinity of any drift areas but on undisturbed accumulation areas. The methods and materials used to locate these must be made public.

14. IMPACTS ON BIOTA

Chapter 6.3.2: This section requires significant improvements in eg. the following areas:

- a) the known impacts of underwater noise on biota must be presented; if the information is deficient, new studies must be made (see OSPAR guidelines and instructions for wind power parks).
- b) the modelling of sediment drift and the examination of the results in relation to the impacts on biota
- c) the impacts of the construction activities on the different species of fish must be clarified. The look into the sport fishing and the fishery in the area (professional and domestic) is very deficient, also. There must be the capability to assess the impacts on both the ecosystem and industries.

- d) the impacts on Baltic seals: the WGMME, the ICES ‘The Working Group on Marine Mammal Ecology’, states in its report (2005) that the subpopulation of the Baltic ringed seal (*Phoca hispida botnica*) is endangered, consisting of a few hundred individuals only. Especially if a part of the construction work would take place utilising the ice cover, the nesting of the ringed seal would be in danger of being disturbed.

15. IMPACTS ON CONSERVATION AREAS

Chapter 6.3.3: Official Natura assessments must be made. In addition to assessing for example the impact of sediment drift on conservation areas, the planned additional construction and extension projects of conservation areas must be paid attention on. Metsähallitus, the forest authority, has plans ready for eg. the extension of the Tammisaari archipelago conservation area, which might stretch the area closer to the intended pipeline. Tammisaari is a Finnish national park which has been awarded an esteemed European conservation area diploma by the decision of the ministers of the European Council. In the conservation area network in Finland, it is the open sea areas which are least represented, so there are pressures to establish conservation areas in the future possibly quite near the pipeline. It must be assessed what the impact of the pipeline is on the ecological value and the representativeness of the area as a conservation area (considering eg. changes in the numbers of species).

16. IMPACTS OF TRAFFIC

Chapter 6.3.4: The EIA does not include a plan to prevent maritime accidents. In addition, an oil spill prevention plan is missing.

17. METHODS TO PREVENT ENVIRONMENTAL IMPACTS

There must be an addition to this section to include activities aiming to decrease underwater noise and the dissolving and drifting of nutrients.

18 EXTERNAL OBSERVERS

It should be clarified whether there is a need to place external observers on the decks of the pipe laying barges at the time of the laying of the pipeline. The observers would represent, for example, the authorities of the country in whose exclusive economic zone the construction work is proceeding at the time. The task of the observers could be to

ascertain that the due orders, regulations and laws are adhered to, and especially to verify that the EIA requirements are appropriately fulfilled. The said arrangement might considerably allay, in advance, the worries caused by the deployment of the project. In addition, the observers could get reliable, up-to-date information daily on the actual environmental impacts of the construction phase, such as noise, extent of the turbidity of the water, or the increase in the amount of dissolved nutrients in the surrounding water.

19. DECOMMISSIONING OF THE PIPELINE

Advance plans must definitely include the questions of responsibility as regards the possible decommissioning of the pipeline. The possible decommissioning must be the responsibility of the constructor (or the constructing country). This party must also commit to an environmental impact assessment to weigh the drawbacks caused by the dismantling of the pipeline (sediment release) or leaving the pipeline in place on the seabed (corrosion).

Helsinki, 26 January 2007-03-06

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ATTACHMENT: WWF statement, the international Baltic Sea programme