



**Consequences of NECA – Summary
final report Report
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Summary

Transport analysis has been tasked by the Swedish Government with analysing the consequences for the Swedish industry if a Nitrogen Oxides Emission Control Area (NECA) were to be introduced in the Baltic Sea and the North Sea.

It is the International Maritime Organization (IMO) who takes decision on a NECA, bringing stricter nitrogen oxides emission standards in the area for vessels built as from 1 January 2021. The stricter emission standards will also include older vessels if their engines, after the effective date, has been replaced or modified in such a way that the engines can be regarded as new. A shift to these stricter standards would mean that engines must withstand an emission reduction of about 80 percent. The NECA-regulation is valid only for vessels sailing the appointed area and only as long as they stay in the area.

In the short run compliance with the NECA-regulation can be accomplished with SCR (Selective Catalytic Reduction). According to the technical study we have commissioned, the next step in 10 – 15 years' time, is to aim for further emission reductions in addition to nitrogen oxides. This can be accomplished through improved combustion technology and alternative fuels. According to the same study the third step is to use fossil free fuels, primarily alcohols.

Large charterers hold a substantial share of the export market in the appointed NECA-area and they are depending on sea transport for export of goods oversea, as well as for import of raw material. For the Scandinavian and the European markets some goods are transported by railway or on the road in combination with the use of ferries, the shortest distance to the continent. Export companies in the north of Sweden must in particular rely on transport by sea. These companies perceive no or little alternatives to sea transport, due to higher costs or scarce capacity for road or railway transport.

Based on information from a number of shipping companies we have estimated costs for adapting ships to NECA-regulation. From calculations of the most available technique to date, we estimate an additional cost of about 5 per cent for investing in a new vessel. The additional annual operating costs for a new vessel are estimated to 3 to 5 per cent. The annual additional cost is therefore limited, but not insignificant. However, many other factors are of greater importance to transportation costs, mainly the cost of fuel. Based on our estimations, and in combination with calculations of modal shift using the Swedish Transport Administration's so called Samgodsmodell, we assess that the impact on competition between different transport modes, as a result of NECA, will be small or negligible.

In interviews with 20 charterers the majority expresses a positive view to the fact that the Baltic Sea and the North Sea is going to be appointed as a NECA. They are also in favour of the way the new regulation is introduced, in the sense that it is not retroactive, but they think that environmental regulation such as NECA should be introduced on a global basis. The charterers assesses however that NECA will have a very small impact on transportation costs. If shifts to other transportation modes are being planned, they are mainly caused by other reasons than NECA-regulation.

The availability of smaller, and at the same time older, ships in the region is good. A great deal of these smaller ships are used by industry allocated along the northern coast of Sweden, since they are well adapted to enter the ports concerned. The interviewed charterers have

expressed their concern for a future shortage of smaller ships adapted to compliance with NECA-regulation, if shipping companies choose to postpone their investments or invest in larger ships. This could lead to higher transportation costs. Even if there is no evidence for the expressed concern, it cannot be ruled out that this could result in a lock-in effect with a region consisting of older ships. On the other hand, a great majority of the ships in the area are younger than ten years. With a ship's lifetime of up to 40 years, it will therefore be long before the whole fleet in the area must be replaced.



Trafikanalys är en kunskapsmyndighet för transportpolitiken. Vi analyserar och utvärderar föreslagna och genomförda åtgärder inom transportpolitiken. Vi ansvarar även för officiell statistik inom områdena transporter och kommunikationer. Trafikanalys bildades den 1 april 2010 och har huvudkontor i Stockholm samt kontor i Östersund.