

# Science for Environment Policy

## Public views on Baltic eutrophication have important policy implications

**Citizens in countries surrounding the Baltic Sea** would be willing to contribute financially towards long-term management of eutrophication, according to a recent study. Furthermore, most would like to see the Baltic Sea managed as a single whole, rather than only improving their local coastal area.

**Eutrophication**, caused by nutrient release from human activities such as agriculture, industry and sewage disposal, is the most serious environmental problem faced by the Baltic Sea. A number of initiatives aim to reduce the flow of nutrients – particularly nitrogen and phosphorus – into the Baltic Sea. The most recent and ambitious of these is the [HELCOM Baltic Sea Action Plan \(BSAP\)](#), which agreed on nutrient reduction targets for each of the nine Baltic coastal countries.

In addition to the BSAP, EU Member States bordering the Baltic Sea also have a legal responsibility to achieve 'Good Ecological Status' in coastal waters under the [Water Framework Directive](#) (WFD) and 'Good Environmental Status' in marine waters under the [Marine Strategy Framework Directive](#) (MSFD). An important part of implementing these directives is involving the public, and other stakeholders, in management decisions.

The study examined which impacts of eutrophication, such as water cloudiness or algal blooms, the public felt needed action most urgently. The study used data from a 2011 survey<sup>1</sup> of 10 564 individuals from throughout the nine Baltic Sea nations. The researchers examined the public's motivation for these preferences and their potential implications for managing the Baltic Sea.

Over half of survey respondents reported that they were willing to pay a contribution towards reducing eutrophication in the Baltic Sea. Of those willing to pay, half thought that their contributions should go towards helping the entire Baltic Sea area, rather than their local areas. However, respondents from countries adjacent to the worst affected areas, such as Russia and Latvia, preferred their contributions to go to more localised areas.

In terms of motivations for their willingness to contribute, a third of people stated that they found the 'existence of healthy marine ecosystems important'. Another third said they wanted to ensure that: 'future generations will be able to enjoy the water quality improvements'.

Another important finding was that respondents were willing to pay for environmental improvements expected in the future (the year 2050), and not only for short-term 'quick fixes'.

Assuming that public preferences should be one of the factors guiding policies, these findings have important implications. To be in line with the public's preferences, measures or policies to reduce eutrophication should aim to improve conditions both in coastal areas and the Baltic Sea as a whole, and address all eutrophication effects by reducing both nitrogen and phosphorus pollution.

The fact that respondents were focused more on improving the entire Baltic Sea, rather than only their own local areas suggests they are willing to help finance nutrient reduction measures in other countries. This could help facilitate development of international agreements. For example, permit trading systems have been proposed<sup>2</sup> to improve the cost-efficiency of reducing nutrient pollution in the Baltic Sea. These could be used to reallocate nutrient reduction between countries, though care will need to be taken to avoid conflict with existing policy, such as the WFD and MSFD.



30 October 2014  
Issue 391

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**Source:** Ahtiainen, H., Artell, J., Elmgren, R., *et al.* (2014). Baltic Sea nutrient reductions - What should we aim for? *Journal of Environmental Management*, 145, 9–23. DOI:10.1016/j.jenvman.2014.05.016.

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**To cite this article/service:** "[Science for Environment Policy](#)": European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.

1. Benefits of meeting nutrient reduction targets for the Baltic Sea – a contingent valuation study in the nine coastal states. See:

<http://www.tandfonline.com/doi/full/10.1080/21606544.2014.901923#.VD0V0hbVpi8>

2. <http://www.naturvardsverket.se/Documents/publikationer/978-91-620-5968-2.pdf>