Signs of decrease in nutrient inputs to the Baltic Sea – first results of the Fifth Pollution Load Compilation

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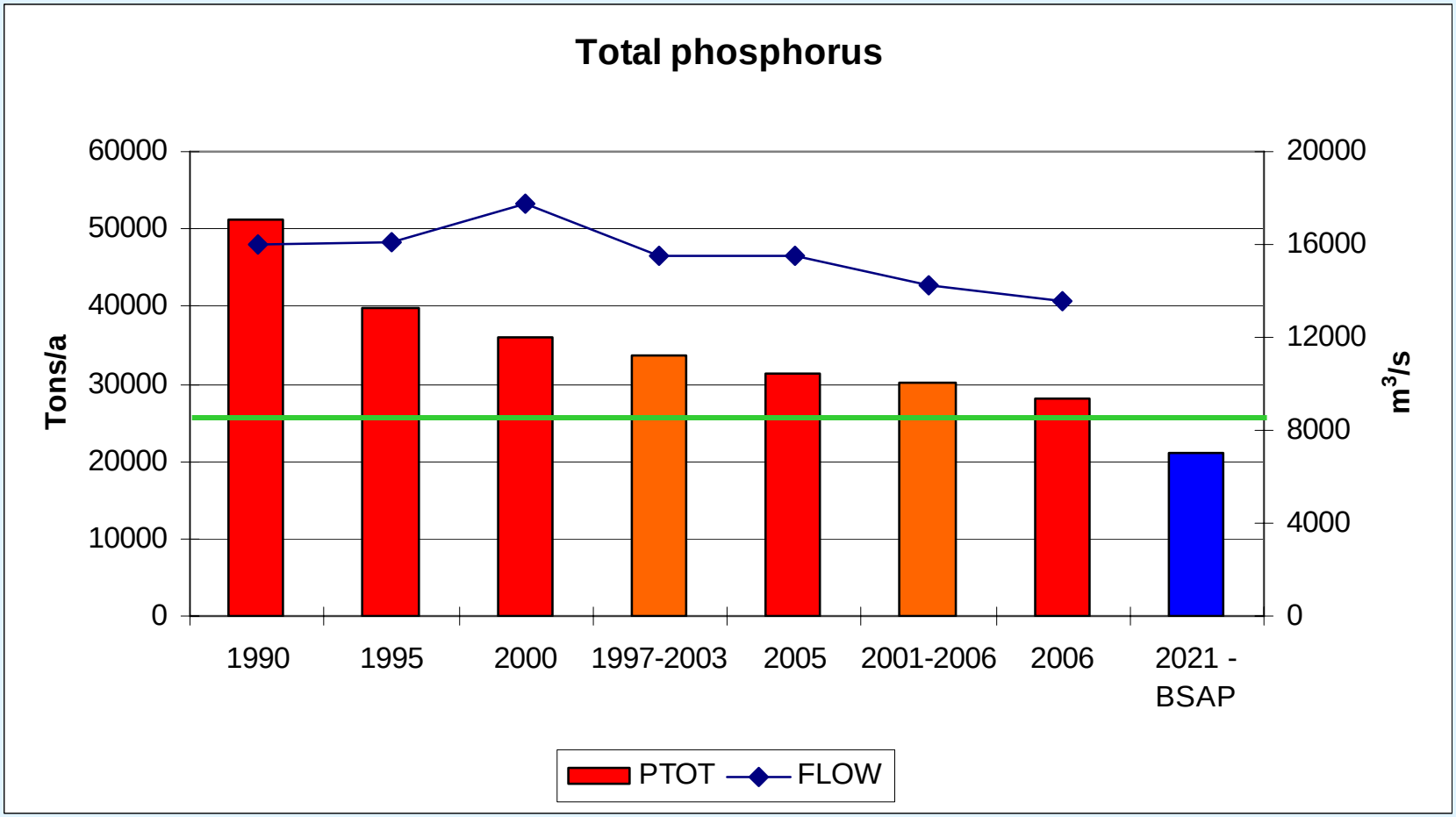
Photo: The John Nurminen Foundation

MINDEC 1988 vs. BSAP

- **The 1988 Ministerial Declaration concerns *reduction of nutrient discharges from sources***
- **The Baltic Sea Action Plan concerns *reduction of nutrient inputs to the Baltic Sea***
- **"Regarding point sources, the 50 % reduction target was achieved for phosphorus by almost all the Baltic Sea countries, while most countries did not reach the target for nitrogen. The results also showed that measures to reduce nutrients from agriculture failed widely" – Lääne et al. 2002**

Phosphorus load into the Baltic Sea in 1990-2006 and the target level of BSAP in 2021



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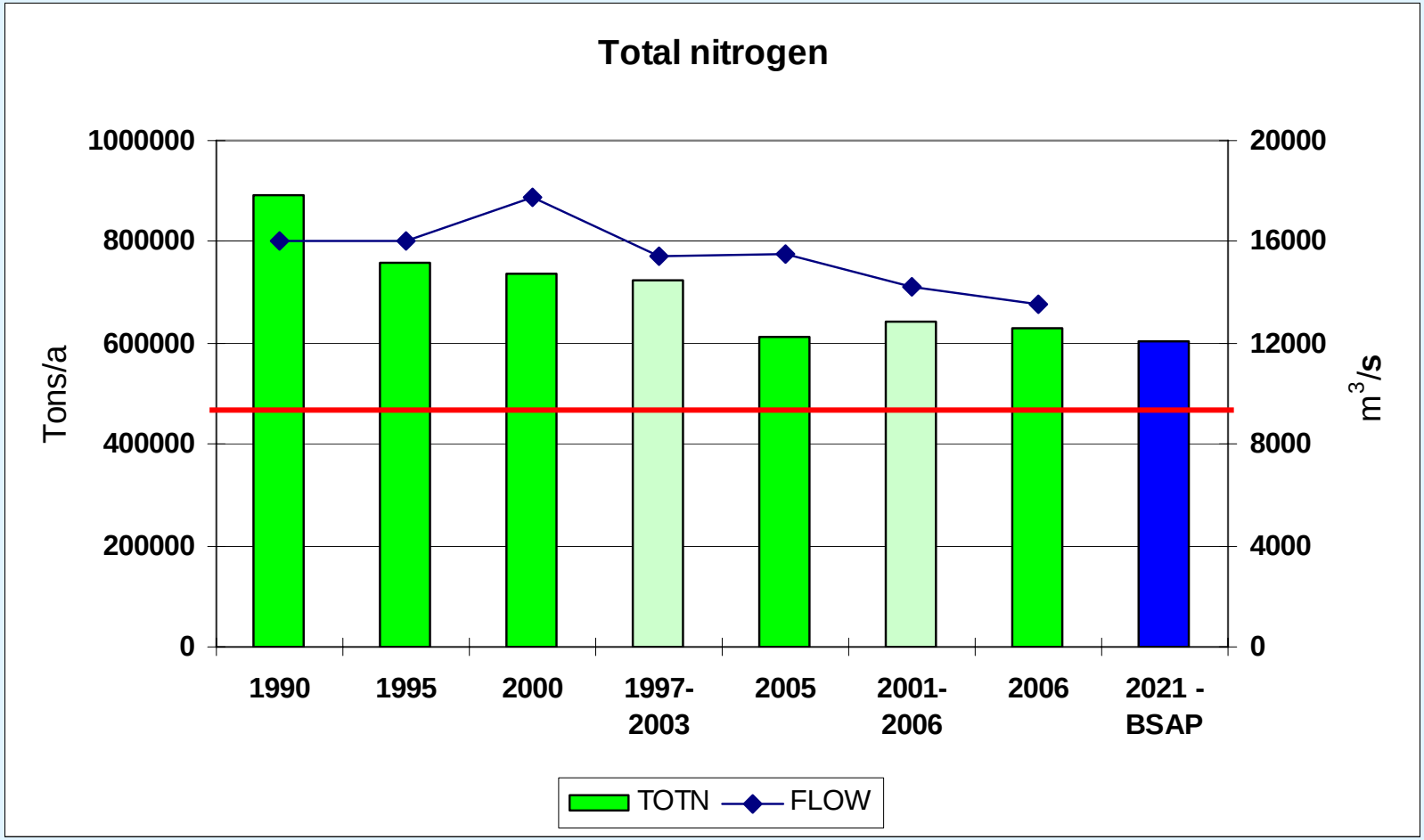
Nitrogen load into the Baltic Sea in 1990-2006 and the target level of BSAP in 2021



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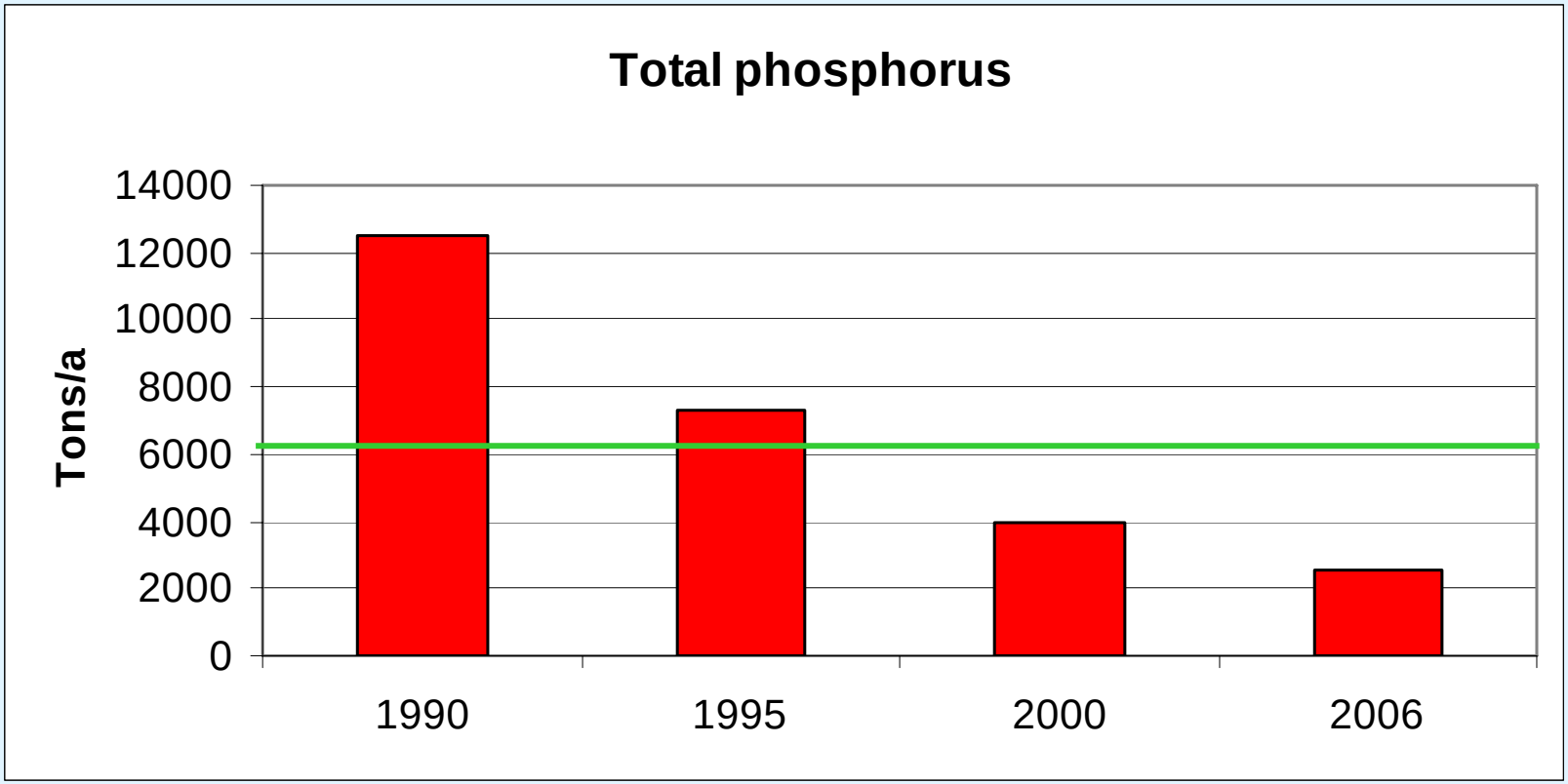
Phosphorus load from direct point sources into the Baltic Sea



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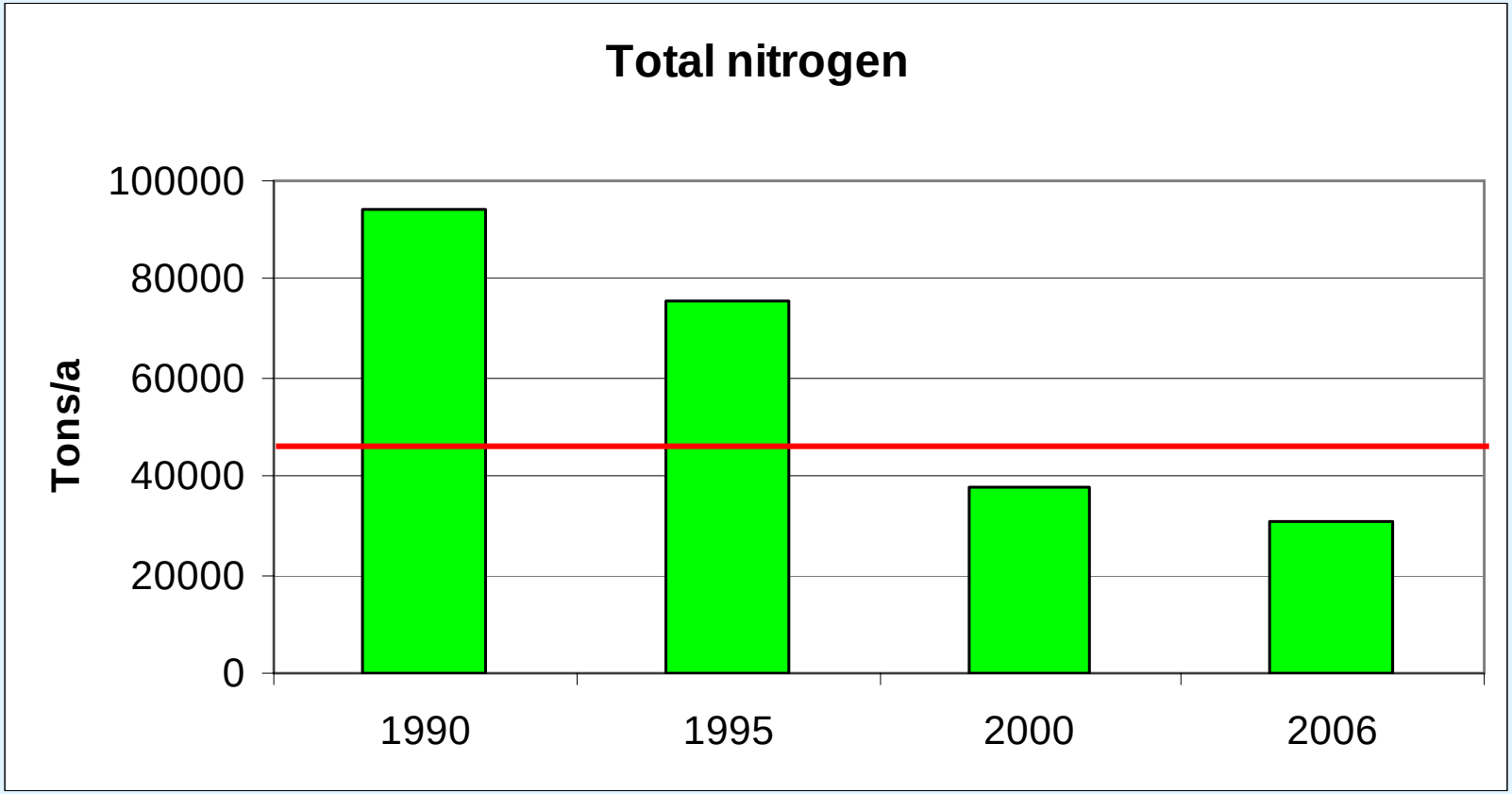
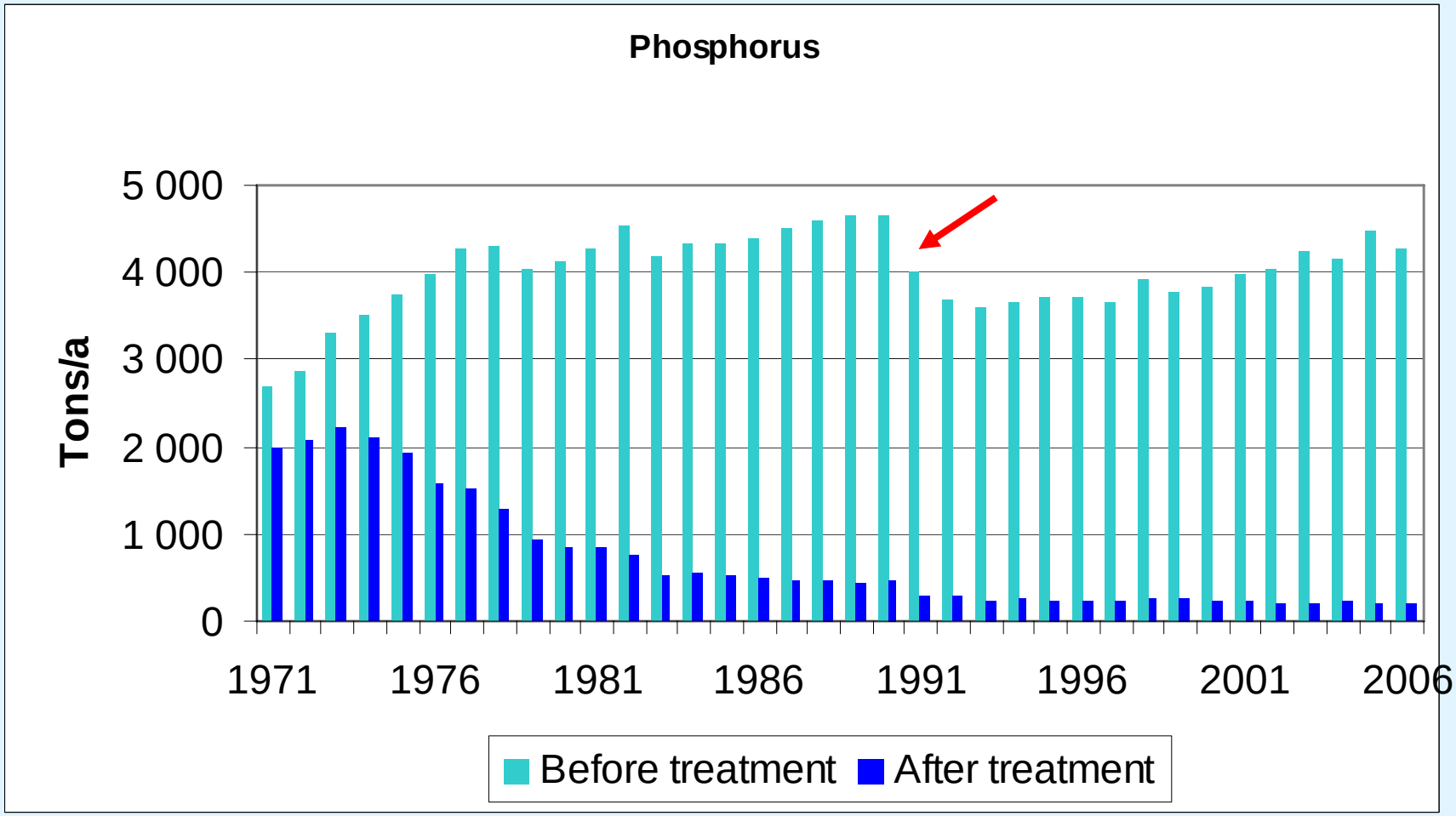
Nitrogen load from direct point sources into the Baltic Sea

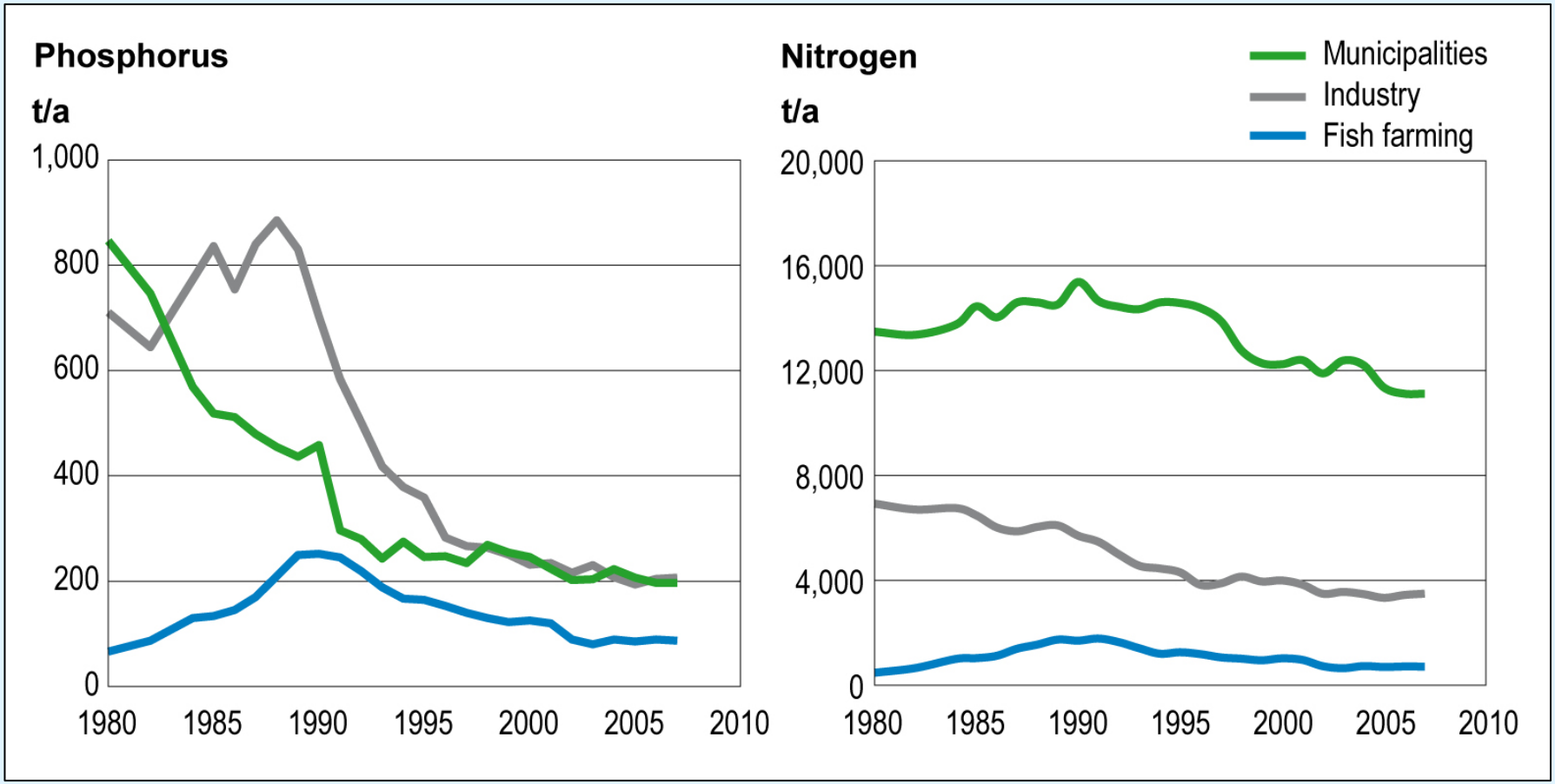


Phosphorus load from Municipal Waste Water Treatment Plants in Finland



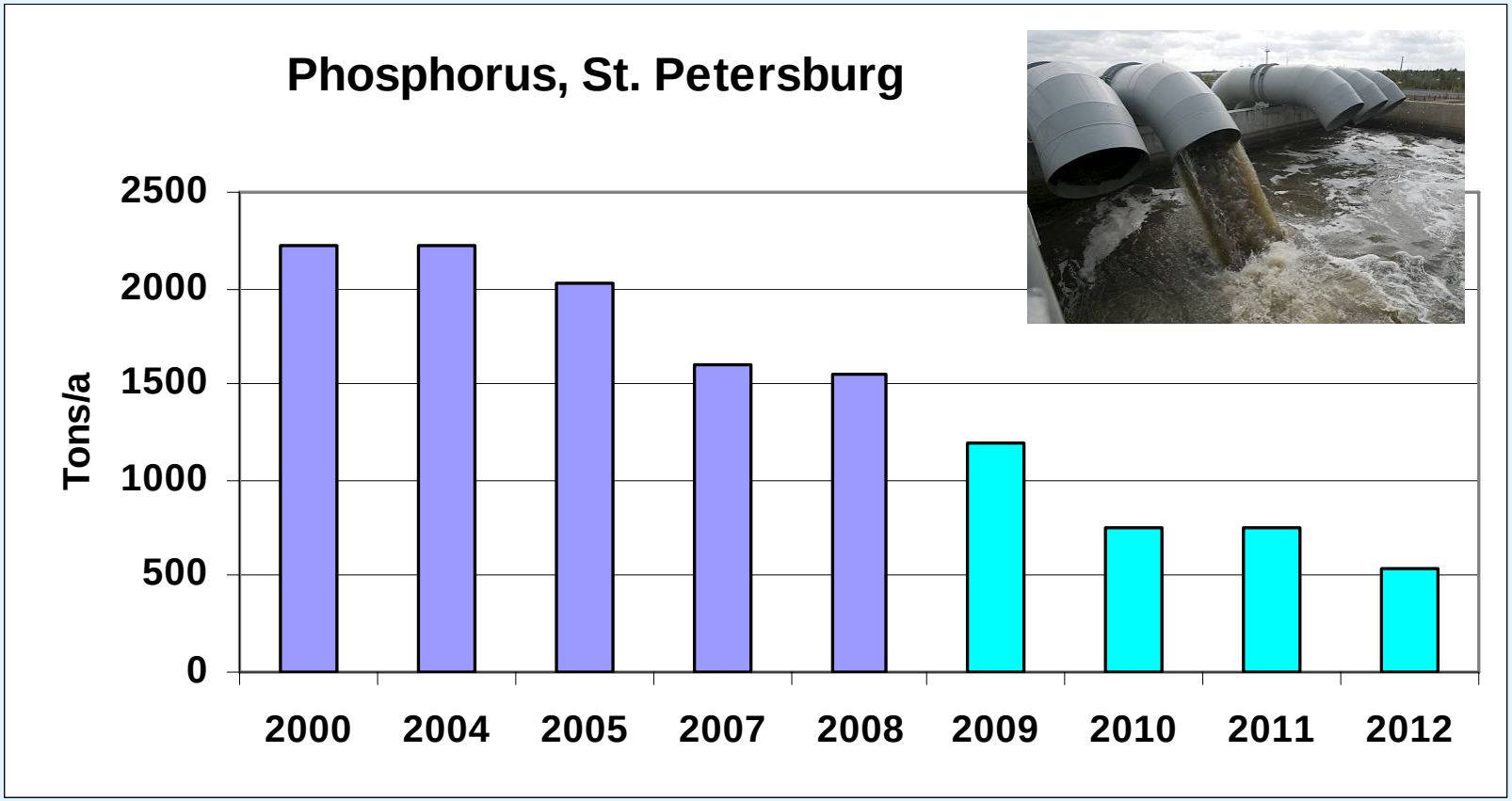
Source:SYKE

Nutrient loading from municipalities, industry, and fish farming in Finland 1980-2006



Source: SYKE

Phosphorus load from the City of St. Petersburg and the estimated reduction until 2012



Source: Homanen, Ekholm, Knuuttila/SYKE

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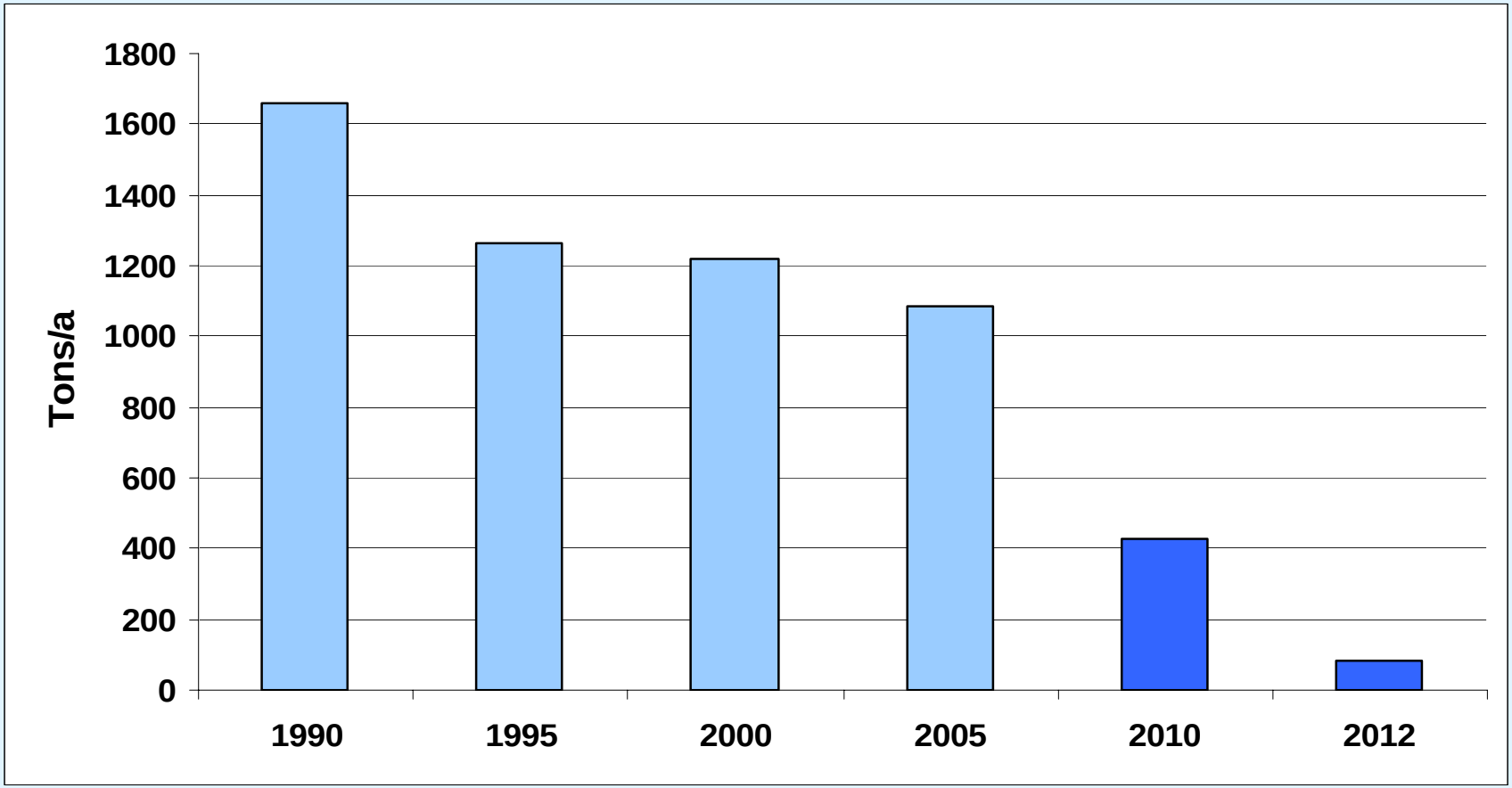
Phosphorus load from the City of Warsaw and the estimated reduction until 2012



Source: The John Nurminen Foundation

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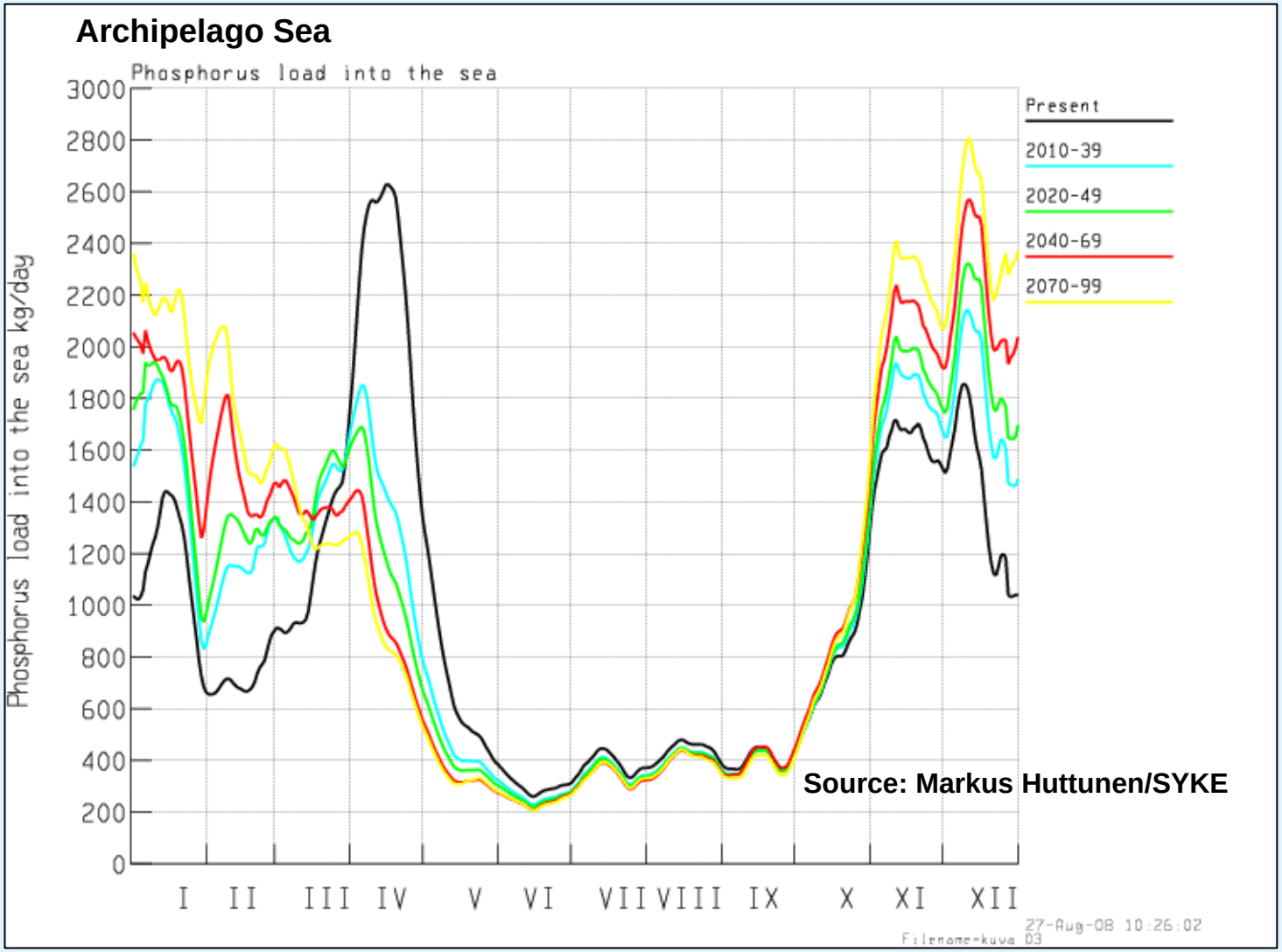
Phosphorus load is increasing substantially according to the climate change scenario:

- In the whole Finland an increase of 350 tons (+10%) is estimated, 200 tons from the fields, 150 tons from other areas
- In the catchment area of the Archipelago Sea P load will increase 60 tons (+20 %), 50 tons from the fields, 10 tons from other areas

River Vantaanjoki (heavily loaded by agriculture), Helsinki, 31 October 2008

Scenario: The effect of climate change on riverine phosphorus loads in SW Finland



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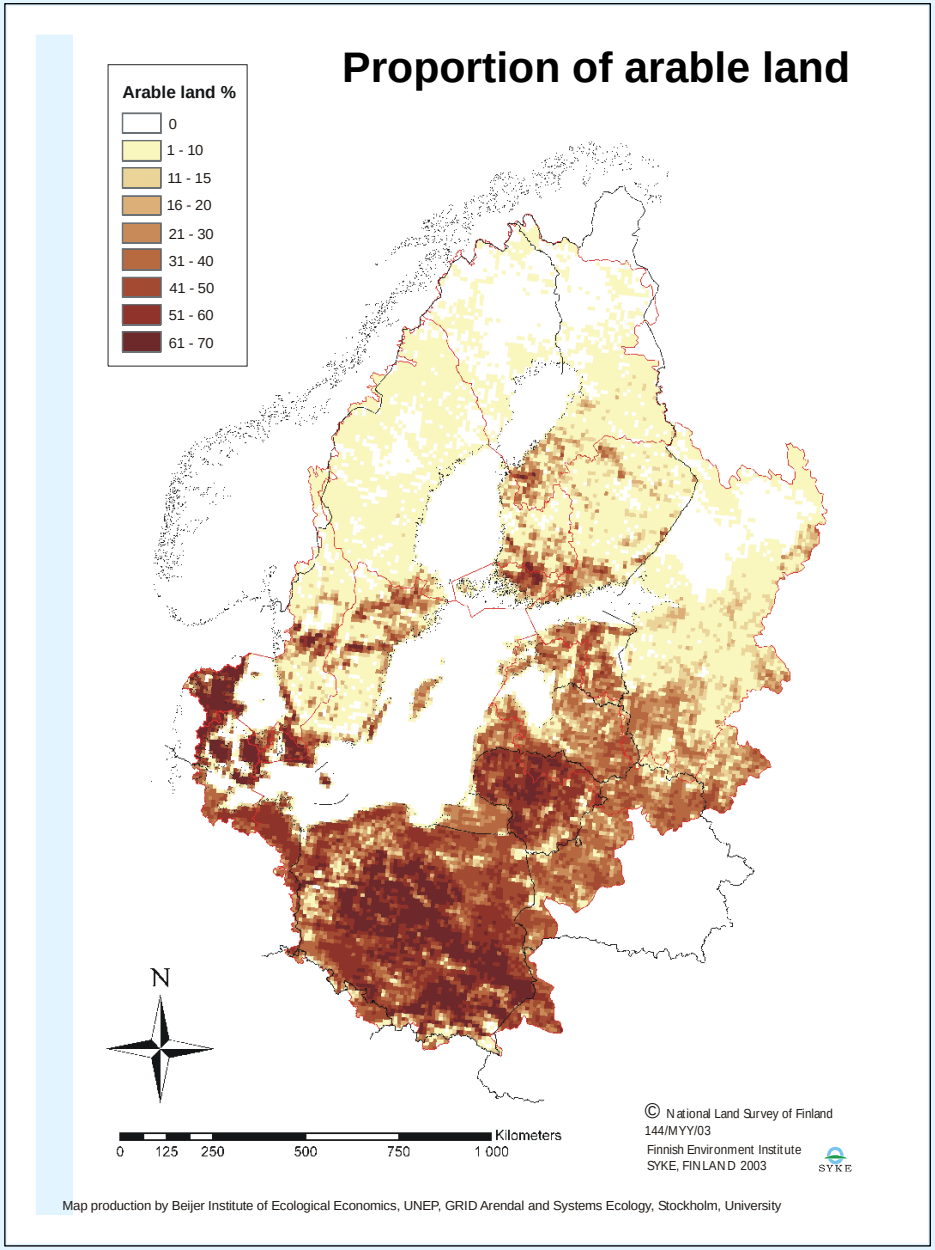
Nutrient loading from agriculture

- As a consequence of climate change the Baltic Sea catchment area will be more favourable for agriculture in the coming decades; both annual mean temperature and precipitation are rising
- How to unify the targets of EU's Common Agricultural Policy and environmental objectives of the Baltic Sea?



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The choice is ours!

Gulf of Finland, off Helsinki, 1 March 2009