



# An Emission Control Area (ECA) for the Mediterranean Sea

## A highly effective measure to tackle air pollution from ships

The undersigning coalition of NGOs calls on the contracting parties of the Barcelona Convention Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia, Turkey, and the European Union to decide at COP22 in December 2021:

**To agree on a submission to the IMO MEPC 78 to designate the Mediterranean Sea an emission control area for Sulphur and Nitrogen Oxides (SO<sub>X</sub> and NO<sub>X</sub>)**

Sulphur oxide (SO<sub>X</sub>), nitrogen oxide (NO<sub>X</sub>) and (ultra) fine particle (PM) emissions from shipping are a significant threat to human health, the environment and climate. In the Mediterranean region emissions from ships contribute substantially to ambient emission levels in a region with around 250 million residents. The World Health Organisation (WHO) warns that annual mean levels in the region are often exceeding its air quality guidelines by more than five times. Furthermore, around 70 per cent of the cities in the Mediterranean littoral states are way above WHO recommendation for PM2.5 pollution levels.<sup>1,2</sup> High ambient concentrations of PM2.5 due to ship emissions are perfectly corresponding with major shipping routes and affect coastal areas, where many of the most densely populated cities of the Mediterranean region are located. Globally 60,000 premature deaths are associated with air pollution from ships and in the EU alone pollution from ships cause around 60 billion EUR in health costs per year.<sup>3</sup>

Studies published by IIASA (2018), INERIS (2019) and REMPEC (2019) show that the designation of the Mediterranean Sea as an emission control area for SO<sub>X</sub> (SECA) and NO<sub>X</sub> (NECA) would reduce SO<sub>X</sub>, NO<sub>X</sub> and PM2.5 emissions significantly: Sulphur oxides would be reduced by 95 percent, PM2.5 emissions by 11 percent if the region was declared a SECA. Harmful nitrogen emissions would decrease by up to 70 per cent if the Mediterranean Sea would be declared also a NECA<sup>4</sup>. By 2050 10,000 premature deaths could be avoided annually<sup>5</sup>. The expected health benefits outweigh the costs of such a measure by factor 4.4. Transport rates are not expected to increase above usual market fluctuations. During the Covid pandemic we saw freight rates rising at exponential rates<sup>6</sup> whereas an ECA regulation would only increase costs depending on the comparatively low price gap between today's harmful fuels to cleaner fuels. For the established ECAs in Northern America, the North and the Baltic Sea as well as in Chinese waters no major negative economic impacts could be figured out.

An assessment of the SECA implementation in the North and Baltic Sea in 2015 states:

**"No significant shifts towards road transport have been found so far for RoRo transport, which is deemed to be the most sensitive market segment for modal shifting. Also, no company or even service shutdowns, nor any decrease in cargo turnover in Northern European ports, that can be clearly linked to the introduction of the 0.1% S sulphur cap, have been found."**<sup>7</sup>

Emissions of air pollutants from ships are regulated by the International Maritime Organisation (IMO) through Annex VI of the International Convention on the Prevention of Pollution from Ships (MARPOL). It sets standards for the sulphur content of marine fuels and emissions of nitrogen oxides (NO<sub>X</sub>). To reduce emissions in a specific area the IMO agreed to designate these regions as emission control area for SO<sub>X</sub> and/or NO<sub>X</sub> and has already done so for the North and Baltic Sea and the North American coastline.



## Overview: Benefits of a Mediterranean SECA and NECA

Reduction of air pollutants from international shipping	Annual avoided premature deaths	Cost benefits	Countries/regions which benefit most
<ul style="list-style-type: none"> <li>&gt; 95% of SOx</li> <li>&gt; 20 - 70% of NOx</li> <li>&gt; 11% of PM2.5</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 4'100 by 2030</li> <li>&gt; more than 10'000 by 2050</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 8-14 billion Euro avoided health costs</li> <li>&gt; cost benefits 4.4 times higher than the costs in 2030 and 7.5 times higher in 2050.</li> </ul>	Greece, Turkey, Albania, Italy, Algeria, Egypt, Israel, Tunisia, Croatia, Morocco, Malta

The full effect on health and socio economics will only be achieved when the Mediterranean Sea was declared an ECA for SO<sub>x</sub> and NO<sub>x</sub>. In 2019 the Barcelona Convention Parties have decided on a roadmap to declare the Mediterranean Sea a Sulphur Emission Control Area (SECA) via IMO. The NGOs welcomed the roadmap but also raised concerns to not delay the process and to include a NO<sub>x</sub> regulation as well. The submission should include a ban of toxic heavy fuel oil including very low sulphur “heavy” fuel oil and consequently a ban of all kind of scrubbers in the Mediterranean Sea.

Governments and parliaments should back their Barcelona Convention, REMPEC and IMO delegations to support the designation of an Emission Control Area in the Mediterranean Sea!

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1 World Health Organization releases new global air pollution data ([link to ccacoalition.org](#))

2 Global Urban Ambient Air Pollution Database ([link to who.int](#))

3 Corbett, 2007: Mortality from Ship Emissions: A Global Assessment

4 INERIS, 2019

5 IIASA, 2018

6 Container rates continue to skyrocket ([link to shippingwatch.com](#))

7 SECA Assessment: Impacts of marine fuel sulphur limits ([pdf on nabu.de](#))

