

Blog

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Human Rights Preparedness

## 'If you don't have to, don't breathe': Air pollution in the Balkans

Ana Funa



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**Abstract:** Air quality is crucial for healthy life and an issue that affects everyone. Long-standing concerns regarding air pollution in the Balkans continue to seriously impact the lives of people there and steps must be taken to address it.

'[Sarajevo](#) is the most polluted city in Europe and indeed the world' | '[Belgrade, Sarajevo and Skopje](#) are among the ten capitals with most polluted air' | '[Belgrade](#) is the most polluted city in the world, the air quality is bad in other cities in Serbia' | '[Today Skopje](#) is the most polluted city in the world' | '[Tonight](#) the air in Skopje was the most polluted in the world' — These are just a few of countless media headlines in just the past five years.

The World Air Quality [report](#) for 2023 prepared by [IQAir](#) showed that only seven countries in the world met the WHO annual PM 2.5 [guideline](#) of average of 5 µg/m<sup>3</sup> or less. This is a measure of tiny airborne particles mostly produced from the burning of fossil fuels, some of which can pass through the lungs and into the bloodstream, affecting almost every organ in the body. In Europe, [Bosnia and Herzegovina](#) was the worst, followed by [North Macedonia](#) as states with the highest concentration of PM 2.5, five times higher than the WHO PM 2.5 annual

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guideline. The [most polluted city](#) in Europe was Pljevlja, Montenegro with an average of 40  $\mu\text{g}/\text{m}^3$ , while in the top 50 most polluted cities in Europe, only five were not from the Balkan countries. The report also gives an [overview](#) for the period 2017-2023, showing the continuity of high concentration of PM 2.5.

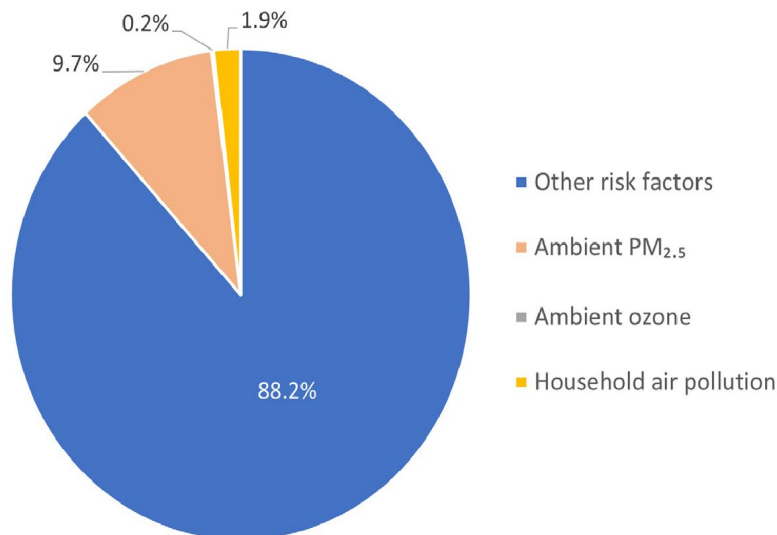
Furthermore, the [Guardian](#) has revealed that 98 percent of people in Europe live in areas with highly damaging fine particulate pollution that exceed WHO guidelines. Almost all residents in seven countries in Eastern Europe – Serbia, Romania, Albania, North Macedonia, Poland, Slovakia and Hungary breathe air that has double the WHO guidance, while more than half the population of North Macedonia and Serbia live with four times the WHO figure. A [2022 report](#) on air pollution in Southeast Europe shows that in 2019 up to 71 percent of the population in this region lived in areas that did not meet the current EU air quality limit value of annual mean 25  $\mu\text{g}/\text{m}^3$ .

These numbers indicate that Europe, especially the Balkan is facing a ‘severe public health crisis’ due to the dangerous levels of air pollution.

### **Burden of disease**

Air pollution is the fourth leading cause of death globally, accounting for nearly 7m deaths; responsible for 1 in 10 deaths and ranked among the top ten risk factors for ill health in all countries in Southeast Europe.

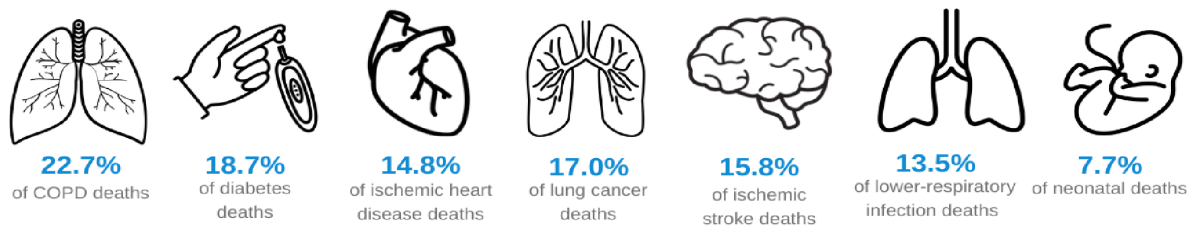
The [2022 report](#) showed that in 2019, 11.8 percent (56,300) of total deaths in Southeast Europe were linked to air pollution, with outdoor PM 2.5 representing the largest fraction (46,600 deaths and 9.7 percent of total deaths) of air pollution–related deaths. The average rate of death attributable to air pollution was nearly four times higher in this region than in Western Europe.



*Percentage of total deaths, including those linked to individual pollutants (PM2.5, ozone, and household air pollution), in Southeast Europe in 2019 ([source](#))*

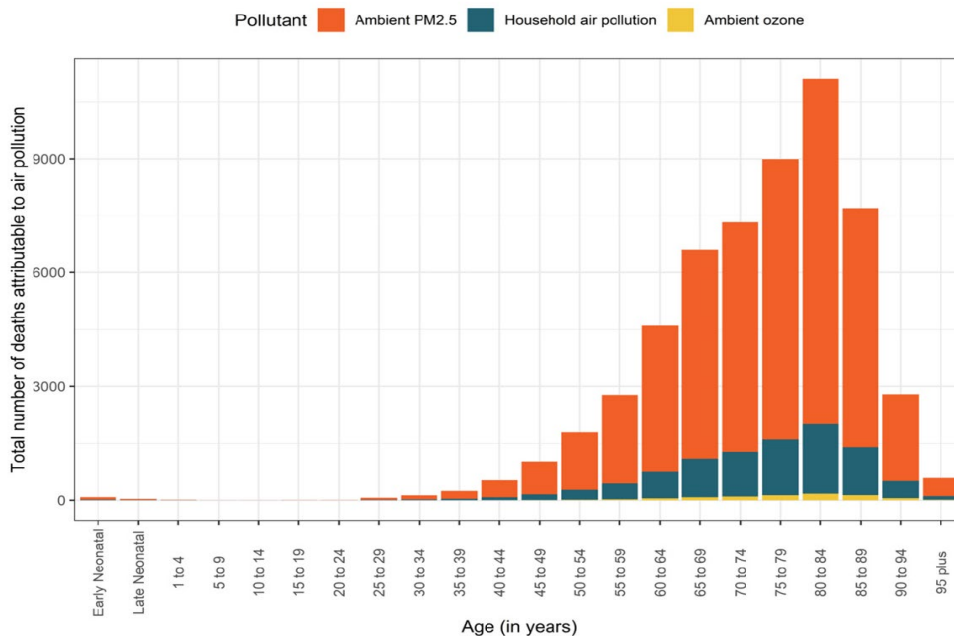
The largest numbers of deaths attributable to air pollution in 2019 were in Romania with 17,100 and Serbia with 12,700, whereas Montenegro, with 700 and Slovenia with 900, recorded the lowest number of deaths linked to air pollution in the region.

The report showed that in Southeast Europe, noncommunicable diseases rank among the most frequent causes of death, with heart diseases, diabetes, chronic lung diseases and infections ranking among the top 10 causes of death, many of which are linked to exposure to air pollution. On average, nearly 23 percent of all COPD-related deaths were attributed to air pollution, with the largest impact in Bosnia and Herzegovina with 30 percent and North Macedonia and Montenegro with 26 percent each.



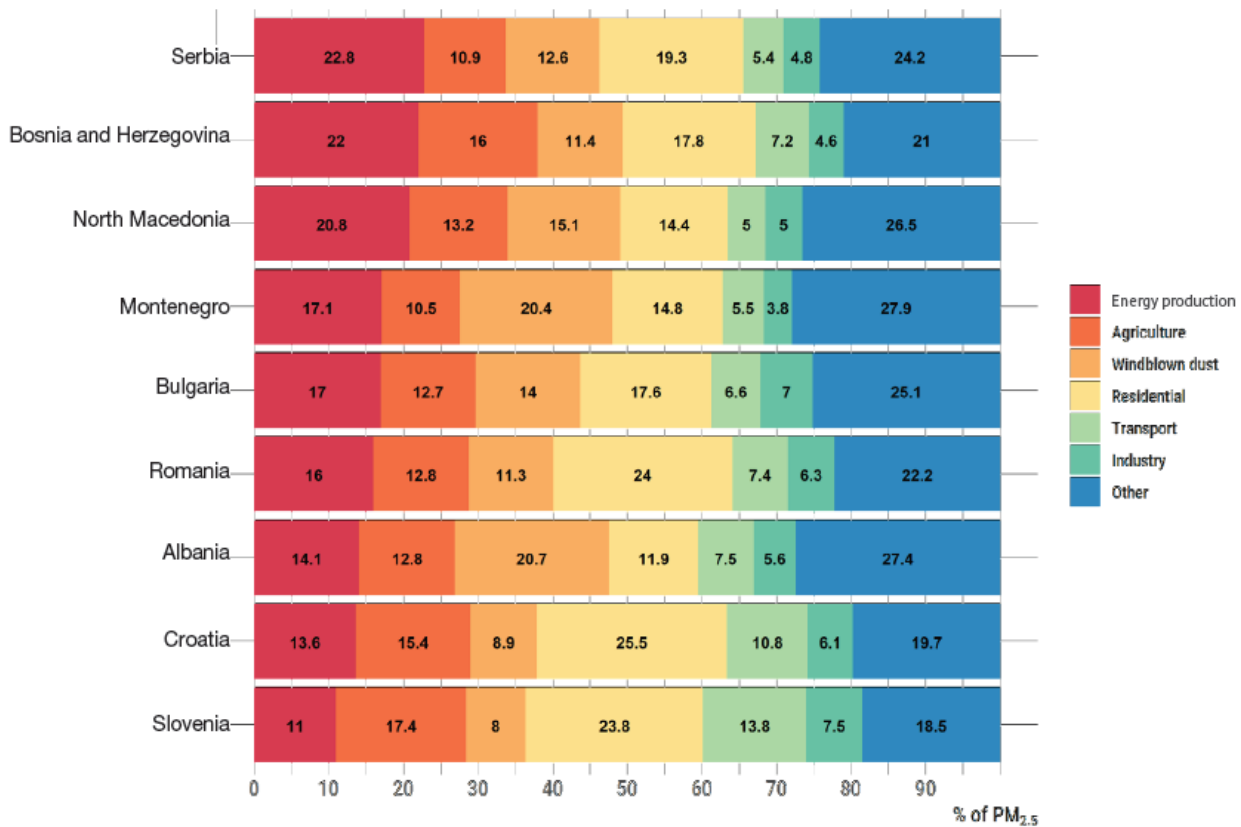
Percentage of deaths (by cause) linked to air pollution in 2019 (source)

Air pollution impacts the health of all people, however the burden of disease attributable to it does not fall evenly across age groups. Children and the elderly are most affected. 68 percent of all deaths related to air pollution occur in people ages 70 or older, while 7.7 percent of infant deaths are due to exposure to air pollution, with most deaths attributed to exposure to PM 2.5. Air pollution also accounted for 100 deaths in 2019 among children under the age of five. The percentage of infant deaths linked to air pollution (PM 2.5 and household air pollution) in 2019 was largest in Bosnia and Herzegovina (11 percent) and North Macedonia (10 percent).



Distribution of deaths in 2019 in Southeast Europe linked to air pollution by age (in years, except early neonatal, 0 to 6 days, and late neonatal, 7 to 27 days) (source)

Traffic, industry, domestic heating and agriculture have been seen as the main sources of PM 2.5 and the impact is often felt disproportionately by the poorest communities. The [report](#) showed that energy poverty and access to clean energy are key issues since a significant proportion of the region’s population is unable to afford to heat their homes or lacks access to the centralised energy systems that rely on energy-intensive and polluting lignite coal power plants. Household heating using biomass and coal plays a more dominant role in air quality compared with the rest of Europe. Fossil fuel (coal, oil and natural gas) combustion contributes between 29-35 percent of outdoor PM 2.5 exposures in Southeast Europe. Energy production relies on old, inefficient coal-fired power plants meaning both production and use result in poor air quality and higher disease burden. Thus, energy production contributes over 20 per cent of PM 2.5 exposure in some countries in Southeast Europe where reliance on polluting and inefficient power plants is high. For Serbia, North Macedonia and Bosnia and Herzegovina, the energy sector was the leading source for PM 2.5-attributable deaths. Moreover, exposure to air pollution is significantly higher in the winter periods.



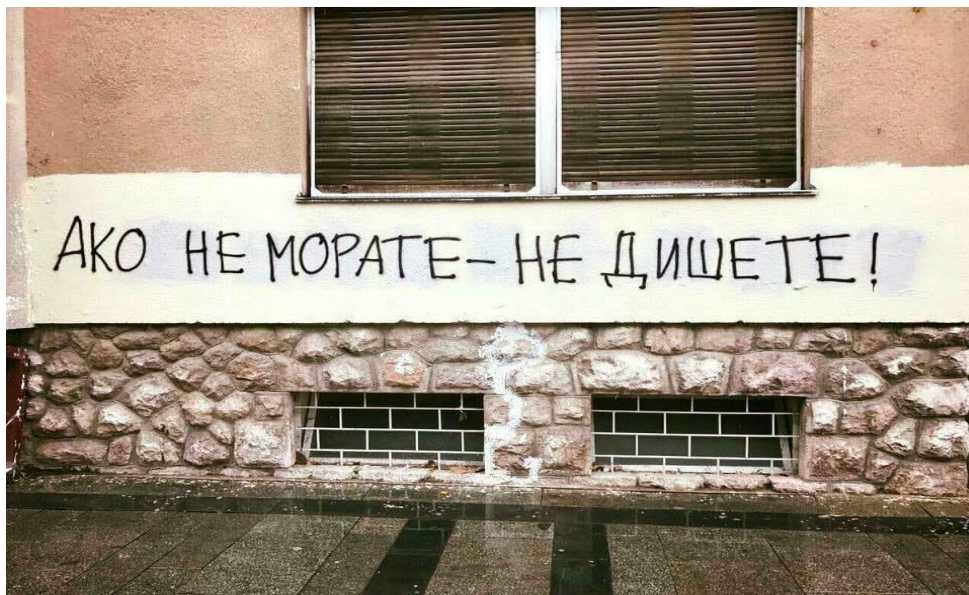
Percentage of PM2.5 from six major sources in nine Southeast European countries in 2019 ([source](#))

Even though [comparative studies](#) show that there has been a decrease in air pollution, it is far from the recommended limits. Air pollution only lessens during winter when the rain or wind wash or blow particles away. The authorities consistently fail to take serious measures to address this issue, apart from adopting various programmes, which evidently do not

contribute much. All political parties are critical of the situation regarding air pollution only when they are in opposition, however when they are in power, it seems they are ignorant of this problem.

Air pollution is a decades-long problem in the Balkans, and unfortunately it seems that it will continue to be so unless serious steps are taken, on local, national and regional levels, in addressing the biggest contributors to air pollution. Better and more efficient public transportation, centralised heating, reducing traffic, especially in the critical days, filters for the biggest industry polluters can be some of the measures which will contribute to reducing the high levels of air pollution.

However, serious pressure should also be put on the authorities by the citizens and NGOs, through protests, campaigns, awareness raising, since everyone's life is affected by the air quality. Meanwhile, the citizens try to protect themselves as much as they can by going to the mountains or wearing masks when outside, or as one creative graffiti artist put it: 'If you don't have to, don't breathe' is the only thing that citizens can do.



*'If you don't have to, don't breathe' – graffiti in Bitola, North Macedonia*