

## - Air pollution

## Our air quality was far better during lockdown

### Study reveals 'dramatic decrease' of pollution in urban areas

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THE burning of coal, wood, turf and other fuel remains the biggest contributor to poor air quality in this country, which is responsible for an estimated 1,300 premature deaths per year, it has emerged.



However, Ireland's air quality was far better during lockdowns, the latest Environmental Protection Agency report also discovered.

Dr Micheál Lehane, director of the EPA's Office of Environmental Monitoring, said there were 'dramatic and immediate decreases in air pollution in our urban areas' during lockdowns last year.

Air pollution from traffic fell at all monitoring stations, particularly at urban roadside locations, because there were far fewer drivers out during the lockdowns.

This is the first time in the history of the State that scientists have been able to study air quality when traffic levels are reduced for months at a time. Despite that positive development, Ireland was still above World Health Organisation air quality guidelines for particulate matter (PM), sulphur dioxide (SO<sub>2</sub>) and ozone at 52 of the EPA's 96 monitoring sites, mostly due to the burning of solid fuel in our villages, towns and smaller cities, the agency said in its annual air quality report.

Because of a 'significant reduction in traffic due to Covid-19 restrictions', nitrogen dioxide fell at all monitoring stations, but most notably at urban-traffic locations where levels fell up to 50%.

At the busy R148 junction between the Irish Museum of Modern Art and Islandbridge in Kilmainham, Dublin, nitrogen dioxide regularly exceeded EU limits of 40 one-millionths of a

gram per cubic meter during morning and evening rush hour. In 2019, it was the worst site in Ireland for nitrogen oxide.

However, during lockdown, levels stayed within EU limits at all times, including during rush hour.

The EPA found an even more dramatic fall in nitrogen oxide in Blanchardstown, Dublin, where levels fell to 15 one-millionths of a gram per cubic metre for the evening rush hour, down from over 40 one-millionths in 2019.

Fine particulate matter from the burning of coal, wood, turf and other fuel remains the biggest contributor to poor air quality in Ireland, which is responsible for an estimated 1,300 premature deaths per year, the EPA said.

The report also revealed that while air quality in Ireland is generally good and compares favourably with many of our European neighbours, there are 'worrying localised issues' which lead to poor air quality.

'Air pollution, even at levels monitored in Ireland, does have a negative health effect as shown in research papers,' the EPA warned yesterday.

At monitoring stations such as Ennis in Co. Clare and Letterkenny in Co. Donegal, relatively large spikes in SO<sub>2</sub> were observed in the winter heating season during typical hours when fires are lit for home heating.

This indicates the dominant source of this SO<sub>2</sub> pollution is the burning of solid fuel, possibly 'with sulphur content in excess of the legal limit', the EPA said.

Levels of this pollutant are of growing concern and are particularly high during winter months, when use of solid fuels such as coal, peat and wood negatively affects air quality, especially in villages, towns and smaller cities.

Pat Byrne, EPA programme manager, said, 'Ireland still has issues with poor air quality due to the burning of solid fuel in our villages, towns and smaller cities. Ireland is above WHO air quality guideline values at many locations and it is imperative that we each, as individuals, make cleaner air choices when deciding how to heat our homes.'

Reduced lung function

'Significant traffic reduction'

The Government has announced that new regulations on the use of solid fuels will come into force in 2022 – when all coal products sold will be required to be low-smoke and all wood sold for immediate use will need to have a moisture content of 25% or less.

The EPA said this was 'a positive step for air quality'. According to the WHO, ambient air pollution accounts for an estimated 4.2million deaths per year worldwide due to stroke, heart disease, lung cancer and chronic respiratory diseases, such as asthma. In children and adults, both short- and long-term exposure to ambient air pollution can lead to reduced lung function, respiratory infections and aggravated asthma.

The EPA has 96 air monitoring stations, 18 of which were installed in 2020. Monitoring data from these stations is continuously updated on [airquality.ie](https://airquality.ie).