



COVID-19 and Air Pollution -The toxic marriage

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As the COVID-19 pandemic ravages populations worldwide with no end in sight, economies are now trying to limp back to normal. With the revival in economic activity, the gains in air quality that cities have seen will evaporate in the thick smoke of our fossil fuel-powered economies. While lockdowns in many cities led to slight improvements in air quality, it is no permanent solution to air pollution and climate change. For while lockdowns led to empty cities, blue skies, and views of faraway mountains, it also left millions without jobs and grappling with ways to sustain and care for themselves and their families.

According to the [World Health Organization \(WHO\)](#) 4.2 million deaths every year are the result of exposure to ambient air pollution, and 3.8 million deaths every year as a result of household exposure to smoke from dirty fuels and cookstoves. People exposed to high pollution are more likely to have weakened respiratory and cardiac systems. There are three ways COVID-19 and air pollution are linked and can affect individuals. First, as SARS-CoV-2 spreads through respiratory aerosols, higher air pollution can increase the risk of contracting COVID-19 as particulate matter can act as a carrier for the virus and aid its spread over large areas. Second, the weakened respiratory systems of individuals residing in high air pollution areas have weakened respiratory systems, increasing their chances of higher severity of the disease. Lastly, areas with a history of air pollution are likely to observe a spike in mortality due to COVID-19. The risk of COVID-19 is amplified by the fact that [91 per cent of the world's population](#) breathes air loaded with a high level of pollutants.

A [Harvard study](#) in April found evidence of a correlation between air pollution and higher COVID-19 related deaths. A publication from the [Italian Society of Environmental Medicine](#) has suggested that the rapid increase of COVID-19 infection rates that affected regions in northern Italy was likely due to atmospheric particulate pollution that acted as a carrier and booster for the virus. The authors identified PM 2.5 to be associated with the higher death rate from the disease. Exposure to PM 2.5 can cause asthma, reduction in a heartbeat, diminished lung function and lead to premature death in people with respiratory or cardiac disease. India is a densely populated country with [464](#) people per km² and 35% of the population resides in urban centres, where the population density ranges from 1,036-28,220 people per km². Most of the 122 cities identified as the most polluted according to the non-attainment cities list under the [National Clean Air Program](#) are densely populated, and of more than 4 lakh active COVID-19 cases in India as on date, around 53 per cent of [active cases](#) are from just 10 cities. The death per million population (DPM) count from COVID-19 in the top 10 cities is [higher](#) than the national average, and this is attributable to the higher number of people aged above 60 in these cities as well as a higher prevalence of existing comorbidities like obesity, hypertension, and anaemia. It is not a secret that Indian cities are among the most polluted in the world and the higher number of COVID-19 cases and deaths paints a sorry picture for the urban residents of India. In these cities, it is poor and the marginalised people who are more vulnerable as they live, work and sleep in confined spaces and have difficulty in accessing clean water.



Air pollution is an established threat to human health and the environment. However, several governments' response to COVID-19 - relaxing environmental regulations, offering doles and bailouts to fossil fuel industries and promoting new investments in coal, threaten to worsen the health impact of air pollution in the long term. The poor and the marginalised, children, pregnant women, the elderly, and those with existing respiratory and cardiac illnesses are particularly vulnerable to adverse impacts of air pollution and COVID-19. The guideline for post-pandemic recovery has come from the secretary-general of the UN, Mr Antonio Guterres when he said that there was no good reason for any country to include coal in their COVID-19 recovery plans and that it is time to invest in non-polluting energy sources with no emissions and that can generate decent jobs and save money. His remarks came a week after the Prime Minister of India revealed that the country will ride on coal for economic recovery from the continuous lockdowns enforced to curb the spread of SARS-CoV-2. The world needs humility to accept the interconnectedness of human and planetary health that has been clearly demonstrated by this pandemic. The onus lies with the governments of today to accept this chance of leading towards a sustainable and green economic recovery built on the back of renewables and not fossil fuels that pollute the air and are one of the prime drivers of global warming. The path we take has to lead us to a new normal dominated by a sustainable and low energy lifestyle (by use of low energy spaces and devices), strong protection of biodiversity and natural ecosystems, and respect for planetary boundaries.