

# Air pollution crisis in South Asia causing massive loss of pregnancies

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A recent study by scientists from Peking University (China) and the University of Connecticut (USA) [1] has revealed that 1 in 15 lost pregnancies in South Asia may be due to air pollution-related health issues. The report, which was based on an analysis of the medical records of lost pregnancies from over 34,000 women in India, Pakistan and Bangladesh, was published in the January edition of the interdisciplinary journal *Lancet Planetary Health*.

Researchers used data collected by the US government's Demographic and Health Surveys 2000–2016. Using a mathematical model, they analysed the correlation between air pollution exposure levels in the three countries during the gestation period and the reported pregnancy losses of the selected mothers.

The scientists used the atmospheric concentration of Particulate Matter smaller than 2.5 microns, more commonly known as PM2.5, as the primary indicator of air pollution. These small solid airborne particles can travel deep into the respiratory system, causing severe respiratory and cardio-vascular problems.

PM2.5 concentrations larger than 40 micrograms per cubic metre of air are considered unsafe. Particulate Matter is usually generated by vehicle exhausts, the burning of wood and other bio-mass, construction work or polluting industries. Rigorous analytical and statistical procedures were used to remove any biases or interferences by other external factors and cases were identified where the dominant factor causing the pregnancy losses could be established as air pollution.

Based on this analysis, the scientists extrapolate that “349,681 pregnancy losses per year were attributed to ambient air exposure of more than 40 micrograms per cubic metre of PM2.5, accounting for 7.1 percent of the total annual pregnancy loss burden in south Asia” between 2000 and 2016.

While the researchers state that these numbers are not

exact because of many experimental limitations in research of this scale, the trend is clear and a shocking indication of how capitalism in South Asia is robbing the next generation of its right to live.

The study reports that the overwhelming majority of pregnancy losses (77 percent) are from India. This is hardly a surprise given that India now has 21 out of 30 of the world's most air-polluted cities.

In the winter of 2019, the Indian capital Delhi faced one of the worst air-pollution incidents in known history. PM2.5 levels surged above 500 micrograms per cubic metre or more than ten times the safe limit. In some neighbourhoods, air-quality measurement equipment simply stopped working because the pollutant loads were too high for them to record.

Tens of thousands suffered from respiratory difficulties, with an untold number of deaths. Schools had to be closed for several days and more than 30 flights diverted from the Delhi airport due to bad visibility. Delhi Chief Minister Arvind Kejriwal described the situation as “living inside a gas chamber.”

The 2018–19 Economic Survey of Delhi [2] reported that in addition to extreme Particulate Matter levels, hazardous gases, such as sulphur dioxide and nitrous oxide, were also well above the safe limits and have increased fivefold and twofold respectively in a decade.

Indian cities with the most dangerous air pollution, such as Delhi, Patna and Ahmedabad, are in the country's northern plains where the cold humid air descending from the Himalayas causes heavy winter fogs. These easily capture particulate matter and other air pollutants and become a hazardous concoction commonly referred to as “smog.”

As early as 2013, the Global Burden of Health report, which was published by the Institute for Health Metrics and Evaluation, warned that air pollution was the fifth highest contributor to mortality in India. By 2017, 17.5

percent of all deaths in India could be attributed in some way to air pollution.

The urban and rural poor bear the brunt of this environmental disaster. The study showed that more than 40 percent of the mothers who suffered pregnancy losses also suffered from anaemia—a direct indicator of poverty. Malnutrition, exhaustion from long working hours and health care unaffordability, make the poor far more vulnerable to air quality-related health issues. Doctors have also reported that deaths from COVID-19, which has already killed hundreds of thousands in South Asia, are increased by air-pollution related respiratory issues among the poor.

Poor peasants involved in waste burning during early winter months are regularly blamed for the dangerous air pollution levels in northern India. While the burning of agricultural waste, such as stubble and hay, is a large contributor to pollution, official claims that this is the main cause of India's air pollution crisis are outright lies.

A study by Urban Emissions Info [3] notes that all bio-mass combustion, including waste burning in agricultural fields, accounts only for 20–35 percent of PM2.5 emissions, compared to 65 percent by vehicular exhaust fumes, industrial emissions and construction activities.

The air pollution crisis in India and other South Asian countries is a product of decades of ad hoc industrial and urban growth, poor environmental regulations and failure to integrate sustainable practices with small- and medium-scale agriculture.

These factors have worsened exponentially over the last two decades as rapid and unplanned growth has herded millions of poor people into the wretched conditions of the region's mega-urban agglomerates. Moreover, thousands of tons of Particulate Matter and other polluting gases are spewed into the atmosphere every day by poorly regulated industries, such as coal-fired power plants and cement factories.

Air pollution, however, is not an insurmountable problem. Particulate Matter emissions can be very effectively reduced by proper vehicular emission regulations, dust-control measures in construction, and proper stack emission treatment in other industries. Agricultural waste, such as hay and stubble, moreover, does not have to be burnt but can be used in composting, bio-mass energy generation and sustainable building construction.

The ruling elites of South Asia, however, have no interest in allocating the urgently necessary resources to implement air pollution abatement measures to save

millions of lives, including the unborn. Instead, the powers that be are preparing to dismantle the minimal safeguards for environmental protection and basic labour rights, to more effectively compete for the position of the cheapest labour platform for international finance capital.

Indian Prime Minister Narendra Modi's "Agricultural Reform Bills," which have sparked mass opposition and resistance, will facilitate an orgy of corporate plunder of land and natural resources and take the environmental issues such as air pollution to unprecedented levels.

In the early 1980s, when the Beijing Stalinist regime opened up China as a cheap labour platform, its cities quickly climbed into the world's "most polluted" list and remained in the "extremely hazardous" category for decades. While air pollution in China has been marginally reduced in recent years, the poisoning of the atmosphere has only been shifted to other parts of the earth's ecosystem.

On the one hand, the atmosphere connects all living beings in one world ecosystem, on the other air pollution is driven by the ruthless thirst for corporate profit in the globalised world capitalist economy. This is international problem and can only be resolved through the intervention of the world working class fighting for a socialist program that restructures the global economy on a rationally planned and scientific basis to serve human need not private profit.

Notes:

[1] Xue T., Guan T. *et al.* 2021. "Estimation of pregnancy losses attributable to exposure to ambient fine particles in south Asia: an epidemiological case-control study." *Lancet Planetary Health*. 5:1. [URL] [https://doi.org/10.1016/S2542-5196\(20\)30268-0](https://doi.org/10.1016/S2542-5196(20)30268-0)

[2] Available here. <http://www.indiaenvironmentportal.org.in/content/464707/economic-survey-2018-19-volume-1/>

[3] Available here. <https://urbanemissions.info/blog-pieces/whats-polluting-delhis-air/#:~:text=It%20is%20our%20opinion%20that,kilns%2C%20and%20industries%2C%20besides%20the>



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