

KNOW THE AIR YOU BREATHE

AN INSIGHT INTO AIR POLLUTION OF
JHARKHAND

WHERE INDIA STANDS IN AIR POLLUTION GLOBALLY?

Air pollution is the 3rd leading risk factor for mortality, accounting for almost 13% of deaths (1.2 million) in India in 2017 alone (1).

Air Pollution has become a great topic of debate at all levels as it violates the *Right to Life* and *Right to live* in a healthy and sustainable environment. Though air pollution has devastating consequences on a global scale, the *people in India* suffer the worst from air pollution.

A study released this year, *State of Global Air*, which assesses the adverse health impacts from exposure to particulate matter, reveals, that the *deaths caused by air pollution is responsible for more deaths* than many better-known risk factors such as malnutrition, alcohol use, and physical inactivity.

Important facts of the report in reference to India (2)

1.2 Million

DEATHS BECAUSE OF AIR POLLUTION

China and India together were responsible for over half of the total global attributable deaths, with both countries facing over 1.2 million early deaths from all air pollution in 2017.

Since 2010

STEEPEST INCREASE IN AIR POLLUTION

China has made initial progress, beginning to achieve air pollution declines in contrast India have experienced the steepest increases in air pollution levels since 2010.

3rd Leading Risk Factor

13% OF DEATHS IN 2017

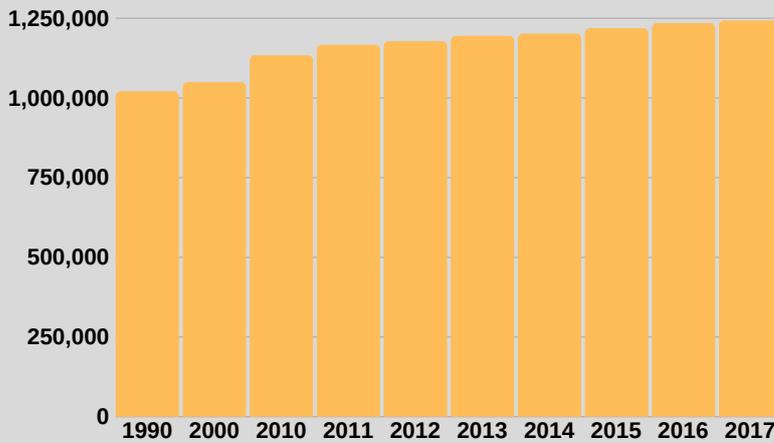
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Loss of 1.6 years

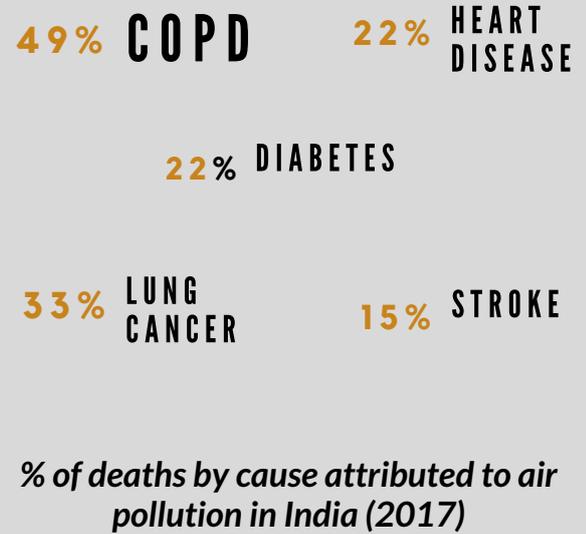
LIFE EXPECTANCY

Exposure to outdoor PM accounted for a loss of nearly 1 year and 6 months in life expectancy.

There is a growing evidence on the number of deaths caused by air pollution in India. The study "State of Global Air" has said that the number of deaths because of air pollution is increasing every year since 1990.



Number of Deaths Attributable to Air Pollution (1990-2017)



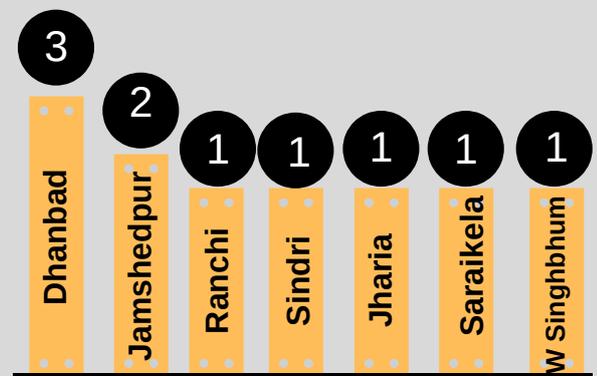
FACT UNFOLD: AIR QUALITY OF JHARKHAND' CITIES

7 cities are covered under NAMP through a network of 10 Manual Stations

According to the WHO Global Urban Ambient Air Pollution Database 2018, most of the Indian cities do not meet WHO air quality guidelines and *most of the urban centres of Jharkhand are in the list.*

7 cities are covered under National Air Monitoring Program executed by Central Pollution Control Board (CPCB) through a network comprising 10 operating manual ambient air quality stations. The parameters monitored under NAMP are three criteria pollutants viz. PM10, Sulphur dioxide (SO2) and Nitrogen dioxide (NO2).

Under National Air Quality Index Program of CPCB, *one continuous Air Quality Monitor* is installed at Dhanbad. One Continuous Air Quality Monitor is also installed in Ranchi.



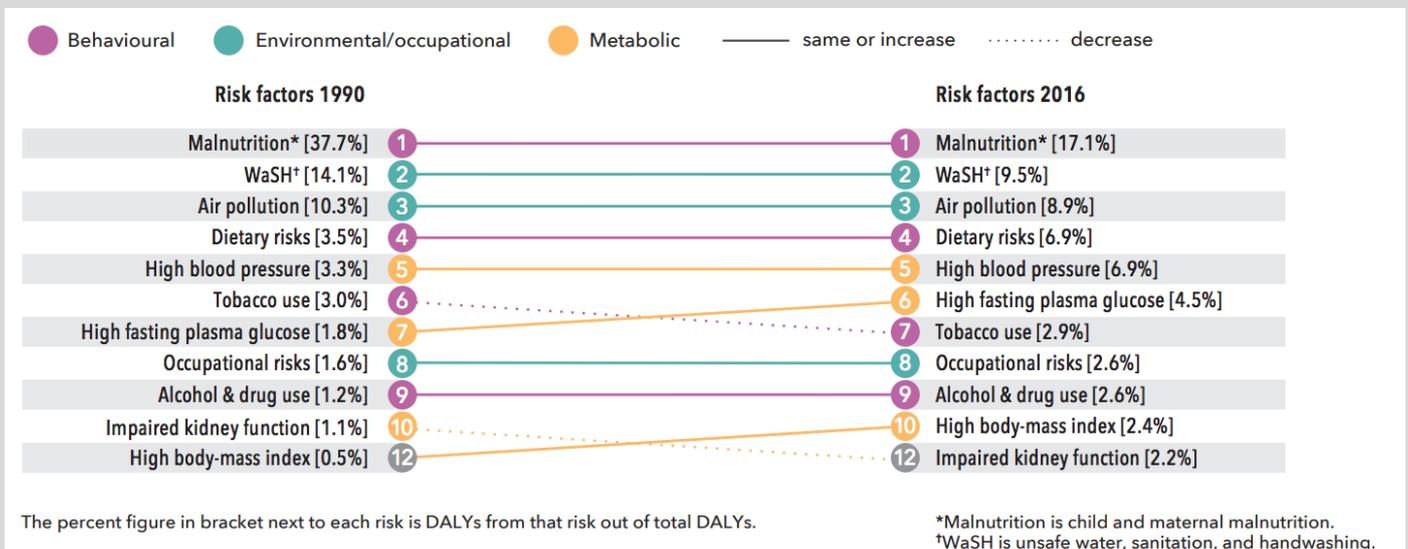
Operating Manual air Quality Monitors (31st Nov, 2018)

The following section shows information on the past trends of key air pollutant. It also address the latest reported data with respective to human health impacts

What risk factors are driving the most death and disability combined?

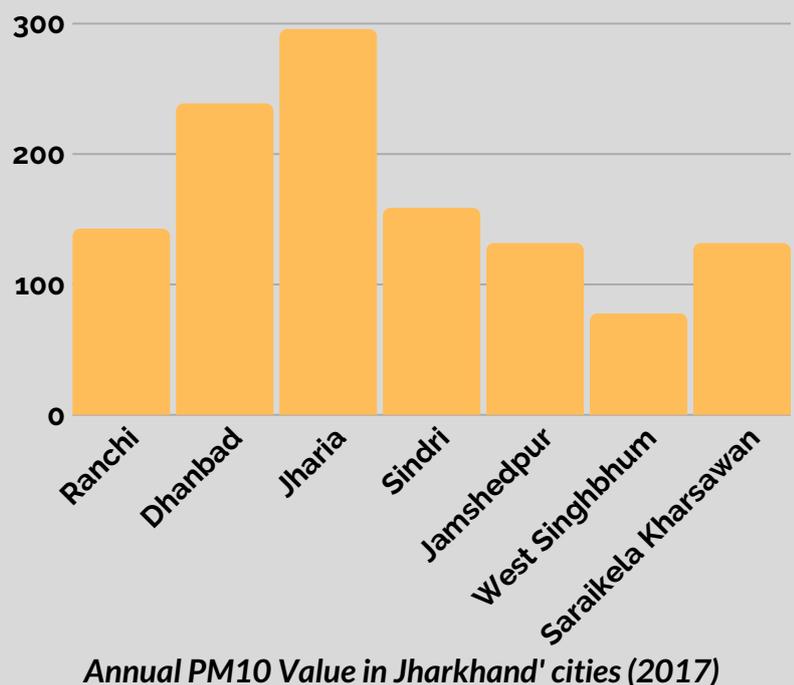
The study published by British Journal Lancet Commission, predicted that nearly **100 deaths per 1 lakh population** in Jharkhand occurred due to air pollution in Year 2016.[3]

Air Pollution is the **third highest risk factor** for death and disability in Jharkhand

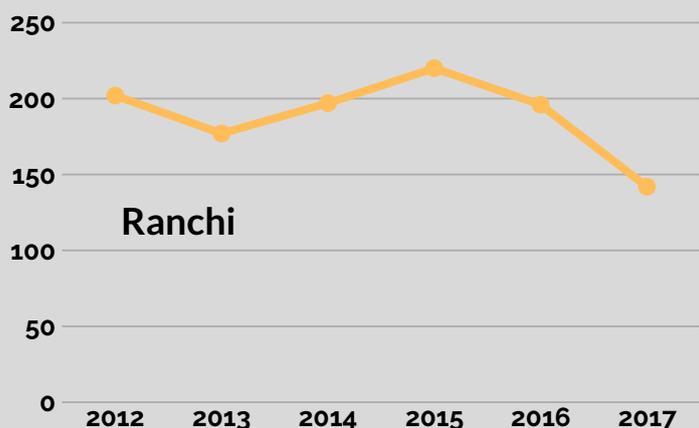


The particulate matter (PM10) is monitored by manual air quality monitors installed at these cities. The annual average mean of PM10 of year 2017 indicates towards an alarming situation where the PM10 concentration is measured to be the **highest for Jharia** which is being followed by **Dhanbad** and **Ranchi**.

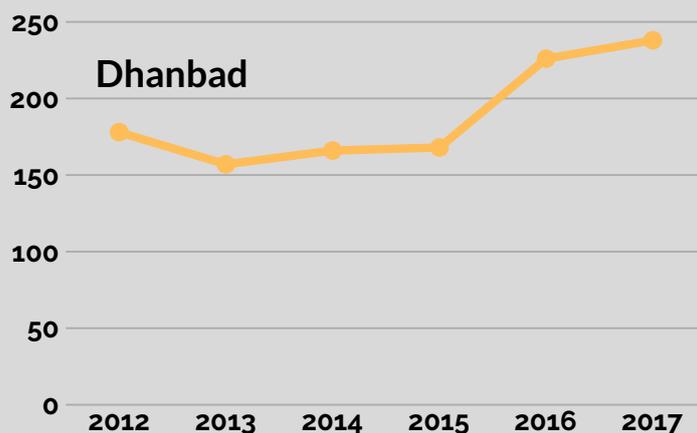
PM10 value exceeds its safe limit by **5-4 times in Jharia and Dhanbad** and **2-3 times in Ranchi and Sindri**



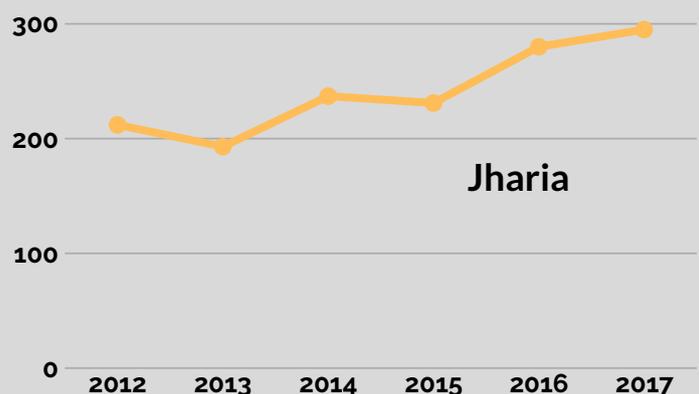
AIR QUALITY (PM10 ANNUAL MEAN IN LAST 7 YEARS (2012-2017))



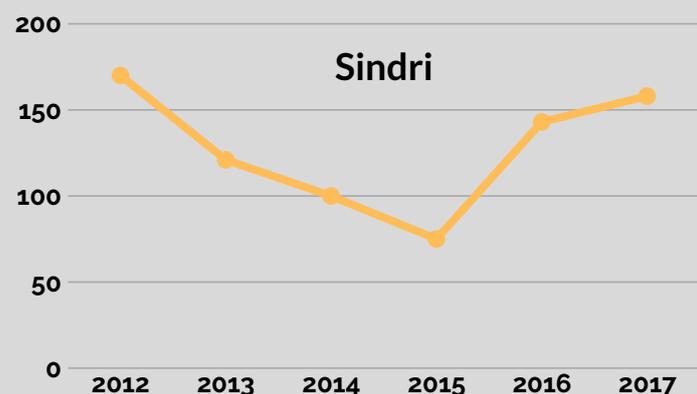
Though the Annual PM 10 concentration of Ranchi shows decline after 2015 but still the value is 2.5 times above the safe limits.



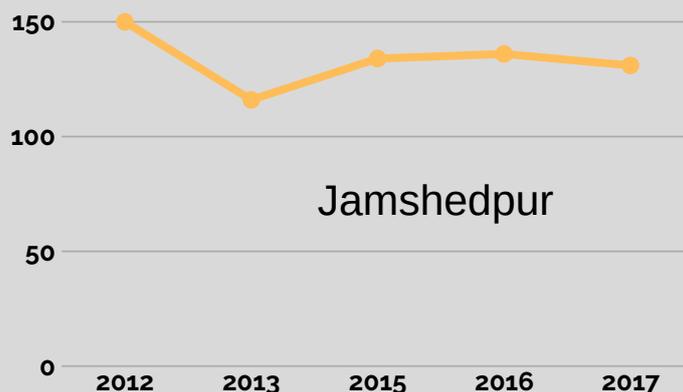
The city's PM10 concentration graph shows increasing trends in the last 7 years. The maximum concentration of PM10 seen in the last 7 years was in the year 2017



Jharia, which shares the same air space with Dhanbad, is showing similar trends. The air quality data recorded in 2017 was the worst in the last 7 years, it was 5 times more than the National safe limit.



Sindri is also struggling with air pollution, with the sudden declines in 2015, the city's air quality remains in critical condition.



In Jamshedpur, the concentration of PM10 remains almost same since 2015, the concentration value is more than 2 times the national safe standard

WHAT NEEDS TO BE DONE

The past air quality trend and current data clearly establish the fact that the air pollution problem is very **critical** in the state. The ominous health evidences should be ignored and its necessary to act **urgently to reduce the public health risks** to children, elderly, poor and all of us.

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IMMEDIATE FORMULATION OF **CLEAN AIR ACTION PLAN** FOR RANCHI, DHANBAD AND JAMSHEDPUR.

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Number of air quality monitoring sites should be increased, starting from Ranchi, Dhanbad and Jamshedpur



Ranchi, Jamshedpur, Sindri and Jharia should be included in NCAP program



Source apportionment study needs to be developed. Especially, a detailed inventory for the transportation sector is recommended. This would help in formulation of city specific inter-sectoral air quality management plan



Continuous Air Quality Monitor in Ranchi should be included in NAQI program



Health advisory for air pollution to reduce exposure during severe pollution days



Formation of Grade Response Action Plan for Ranchi, Dhanbad and Jamshedpur

For More Information

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