

Deaths due to outdoor air pollution in India and China

- Greenpeace India, 16th November 2016

According to Global Burden of Disease (GBD)¹, the number of people dying daily due to ambient² (outdoor) air pollution in India has overtaken that of China in 2015.

The graph³ (Figure 1) shows the death rate in India and China due to outdoor air pollution between the years 1990 and 2015. According to GBD, the deaths are caused due to prolonged exposure to particulate matter and ozone released to the atmosphere from various activities. In India the rate of premature deaths has been increasing at an alarming rate (from 2140 deaths per day in 1990 to 3283 in 2015). In contrast, while China's current rate is similar to that of India, the Chinese government has managed to stabilize or even reduce the number of deaths in the past decade through an array of measures to tackle air pollution.

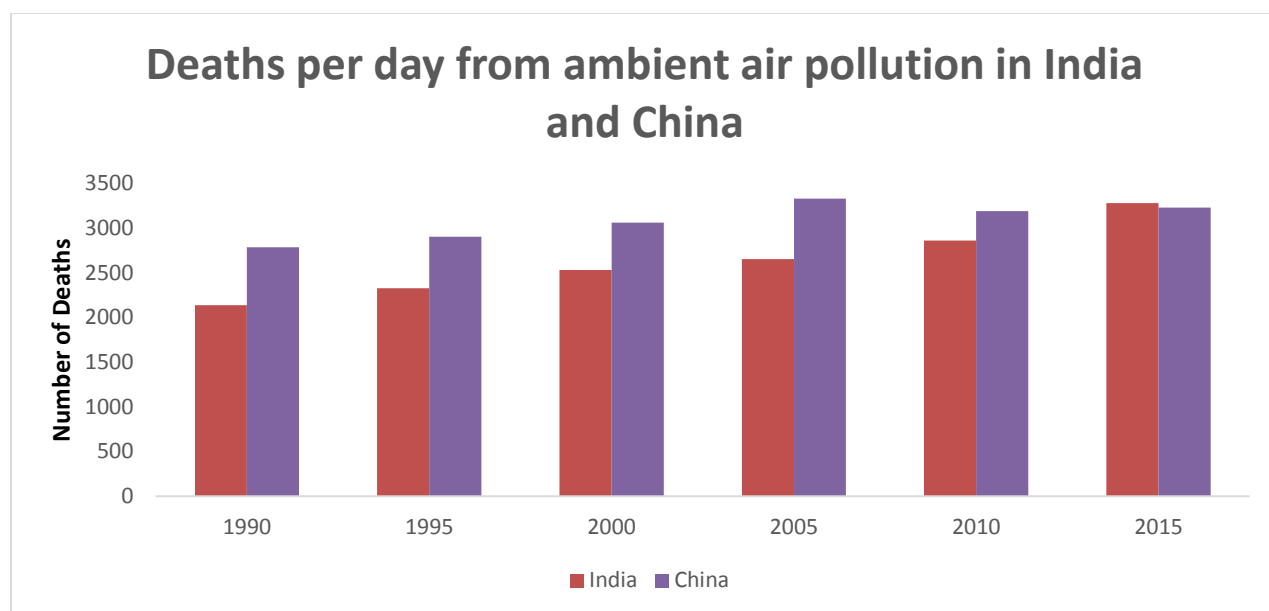


Figure 1

Greenpeace India report “Clean Air Action Plan: The Way Forward” released in February 2015 highlighted that for the first time in decades India's PM_{2.5} levels crossed the levels in China and an analysis of the GBD data clearly demonstrates that the increase in pollution levels has led to an increase in the number of deaths.

¹ A worldwide collaborative effort to measure the impact of health problems on people, GBD is coordinated by the Institute for Health Metrics and Evaluation at the University of Washington in Seattle. Data for the project are collected and analyzed by 1,870 collaborators from 124 countries and three territories. GBD uncovers the toll of early death and disability caused by more than 300 diseases and injuries in 195 countries and territories from 1990 to the present.

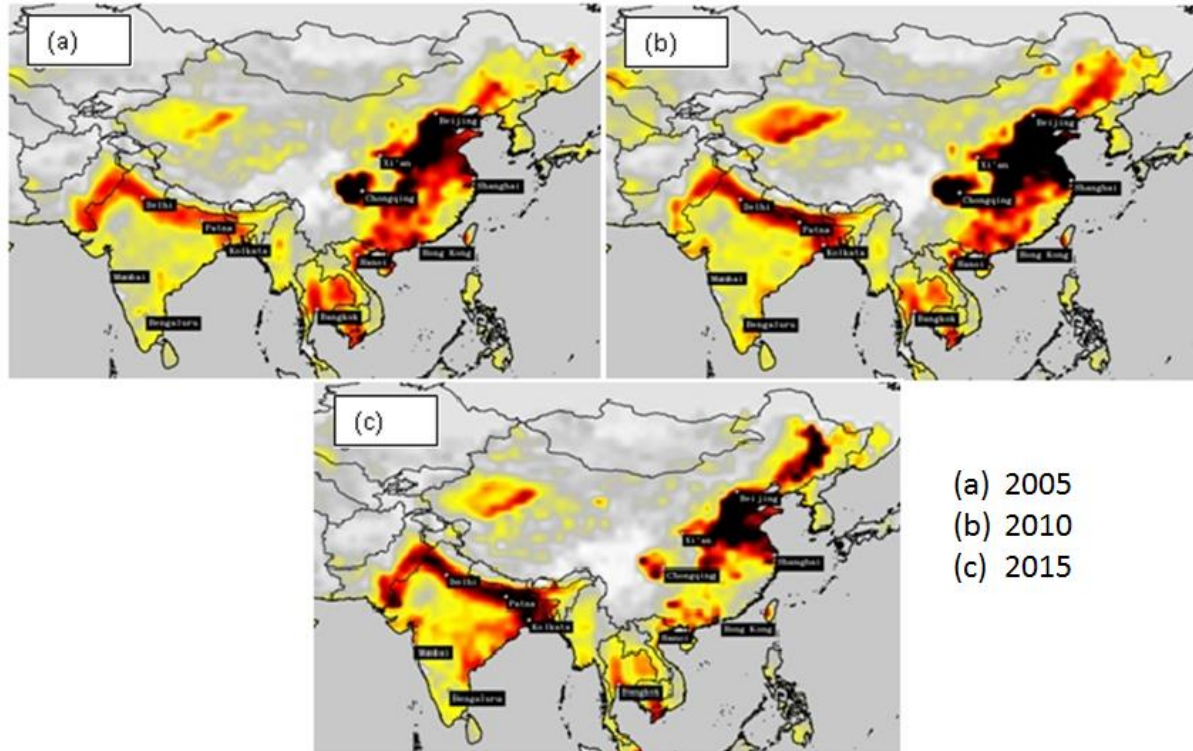
² Ambient Ozone and Particulate Matter concentrations

³ <http://ghdx.healthdata.org/gbd-results-tool>

Figure 2 depicts the Aerosol Optical Depth (AOD) for India and China as analysed and compiled from NASA satellite imagery and it clearly depicts the air pollution levels rising and intensifying across India, as compared to China where there is reduction in the air pollution levels compared to 2011 levels.

Unlike in China, the efforts to bring down air pollution levels in India haven't thus far taken a consistent shape. China adopted stricter emission standards for thermal power plants in 2011 and a national/regional action plan in 2013, which led to the reduction in pollution levels, hence the stagnation of death rates. In contrast, fossil fuel consumption has grown drastically in India, with high population growth. No stringent actions have been taken to control the rising pollution emission load from the uncontrolled growth of coal based power plants in the country, increasing oil consumption in the transportation industry, and increase in emissions from other uncontrolled industrial activities. As a result, the death rates are on the rise.

We have seen the hazardous levels of air pollution covering India recently from last week of October to 1st week of November. The situation has not improved and air pollution levels are likely to be hazardous for the months to come.



Aerosol Optical Depth (AOD): A proxy for PM_{2.5} measurements over India and China

Figure 2

The solution to pollution does not lie in tackling one sector and ignoring others - the key is to adopt a comprehensive national and regional approach similar to China. Key measures driving China's dramatic air quality improvements have included coal consumption caps and coal consumption reduction in key regions and on the national level, a determined drive to improve emission controls at power plants and industry. This approach, combined with tackling the transport sector, construction and demolition

activities and biomass burning etc. is needed to stop the alarming increase in air pollution deaths in India. There is an urgent need for a national clean air action plan which is comprehensive in terms of covering all the sectors and regions, systematic in terms of short-term and long-term actions to be taken along with clearly stated responsibilities for authorities to reduce air pollution levels in a time-bound manner.