

A way to reduce air pollution deaths as climate change mitigation goals are set

November 30 2021, by Bob Yirka

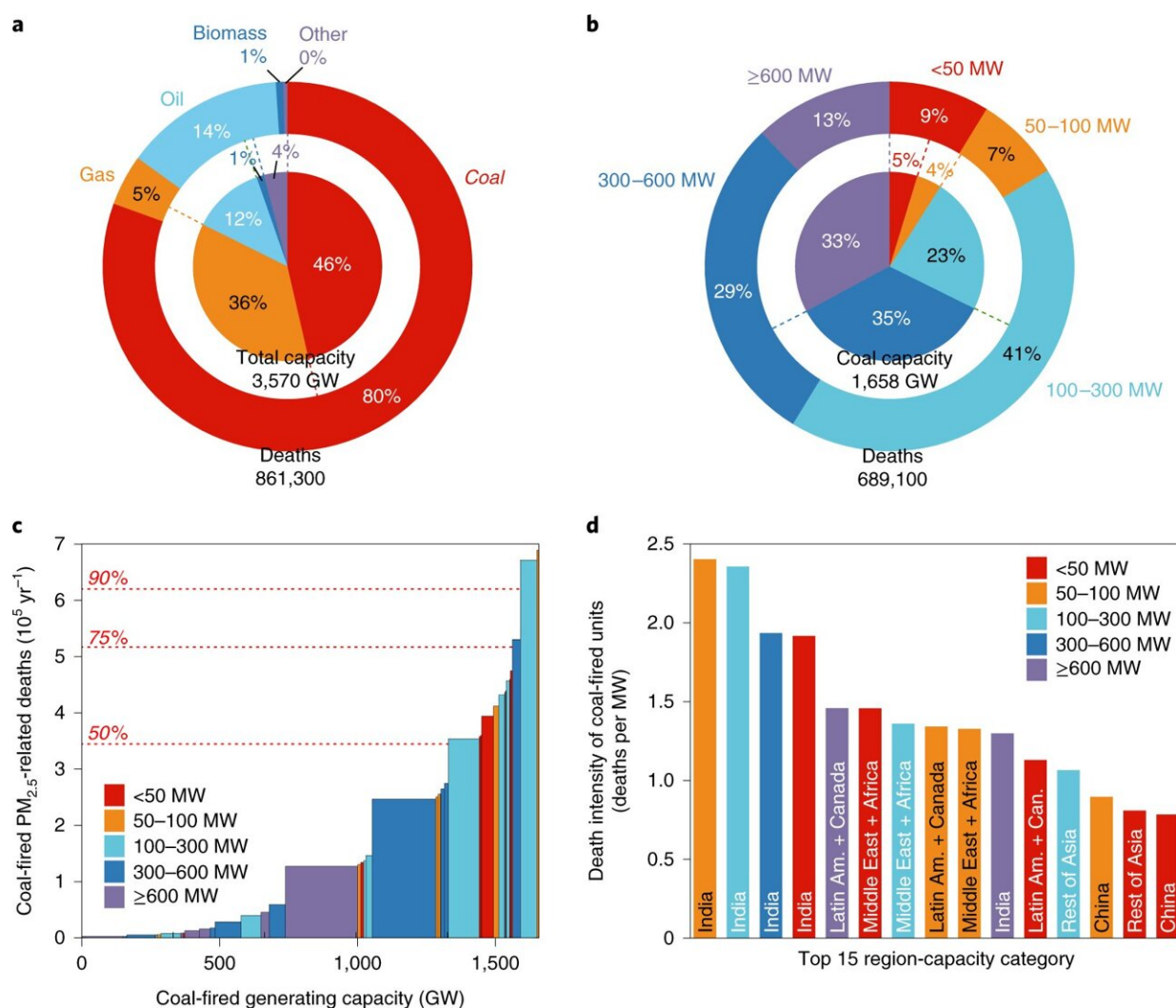


Fig. 1: Shares of PM_{2.5}-related deaths from global power plants as of 2010.
Credit: DOI: 10.1038/s41558-021-01216-1

A team of researchers from China and the U.S. has found that it should be possible to dramatically reduce deaths due to air pollution over the coming decades if climate mitigation strategies are designed with short-term health improvements in mind. In their paper published in the journal *Nature Climate Change*, the group describes their study of the most hazardous power plants in countries around the world.

As countries look to reduce carbon emissions, one of the main targets is coal-fired [power plants](#). In this new effort, the researchers note that such plants emit pollutants beyond CO₂; of particular note are tiny, airborne particles that wind up in the lungs of people living in the surrounding area. They also note that as countries make plans to shut down or refit coal-fired [power](#) plants, they ought to consider which plants are impacted. While closing a lot of plants that are situated far from population centers would reduce [carbon emissions](#), it would not do much to reduce the numbers of deaths due to other pollutants from power plants. So they suggest that officials in affected countries make efforts to close or regulate those power plants that are causing the most harm. They suggest that doing so could save up to 12 million lives over the coming decades.

The work by the team involved gathering and analyzing data regarding coal-fired power plants for the years 2010 to 2018, noting specifically how much pollution they emit and how close they are to populated areas. They found that more than 800,000 people die prematurely from coal plant pollution each year. Approximately 92 percent of those deaths are in low-income countries, most particularly India and China, though there are others in Southeast Asia, the Middle East and Africa. Targeting the worst offenders, the researchers suggest, could substantially reduce the number of people experiencing health related problems by 2050—the target date for meeting the 1.5 degrees Celsius global warming goal. They also found that even if such power [plants](#) are not closed, they could still be made much safer for the public, possibly saving as many as 6

million people by 2050.

More information: Dan Tong et al, Health co-benefits of climate change mitigation depend on strategic power plant retirements and pollution controls, *Nature Climate Change* (2021). [DOI: 10.1038/s41558-021-01216-1](https://doi.org/10.1038/s41558-021-01216-1)

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