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Cut Soot to Stave Off Sea Level Rise

Reducing certain kinds of air pollution could limit the rise of ocean waters and buy time to address CO2 emissions. David Biello reports

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Soot. The dirty, dark particles clog lungs, causing asthma and other chronic breathing problems. Turns out cleaning up such soot, along with certain other types of air pollution, could help slow sea level rise too. That's according to new research published in *Nature Climate Change*. (*Scientific American* is part of Nature Publishing Group.)

Researchers looked at soot and various greenhouse gases that don't last very long in the atmosphere, such as methane, ozone in the lower altitudes and the factory-made refrigerants known as HFCs.

Previous studies have shown that cutting these types of air pollution could slow climate change, buying time to bring carbon dioxide emissions under control. The new research shows that such cuts would also significantly slow the rate of sea level rise—by more than 20 percent per year, which could keep the rise under a meter by the end of the century.

Cutting these so-called short lived climate forcers by 30 to 60 percent would prevent roughly a degree Celsius of additional warming, meaning less thermal expansion of ocean waters and less meltdown of ice sheets.

Cleansing the air of soot saves lives directly. But it also might help reduce the price demanded by the waves lapping ever higher at the shore.

-David Biello

[The above text is a transcript of this podcast.]



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