

AIR POLLUTION AND INCREASED VULNERABILITY TO COVID-19

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**CLIMATE &
CLEAN AIR
COALITION**
TO REDUCE SHORT-LIVED
CLIMATE POLLUTANTS

UN 
**environment
programme**

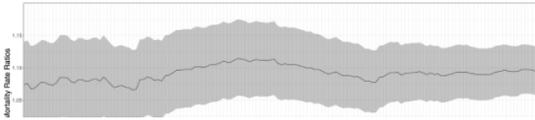
ONGOING RESEARCH: COVID & AIR POLLUTION

COVID-19 PM_{2.5}
A national study on long-term exposure to air pollution and COVID-19 mortality in the States

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Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study (Updated April 24, 2020)

Notice: In the revision on April 24, 2020, we have updated our analysis using data up to April 22, and importantly in which we have adjusted for additional confounding factors that also reflect the timing of the epidemic's spread, the timing of the social distancing policies and the population age distribution. Consequently, we have revised our finding as that an increase of 1 $\mu\text{g}/\text{m}^3$ in $\text{PM}_{2.5}$ is associated with an 8% increase in the COVID-19 death rate (95% confidence interval [CI]: 2%, 15%).



Latest News

New Research Links Air Pollution to Coronavirus Death Rates

How racism, COVID-19 and air pollut striking patterns of inequality

Who is Most Likely to Die From the Coronavirus?

Omission of air pollution from report on 19 and race 'astonishing'

Trump, Citing Pandemic, Moves to V Key Environmental Protections

Cut air pollution to help avoid second coronavirus wave

Harvard: A small increase in long-term exposure to $\text{PM}_{2.5}$ leads to a large increase in the COVID-19 death rate.

Incidence of COVID-19: Connections with Air Pollution Exposure

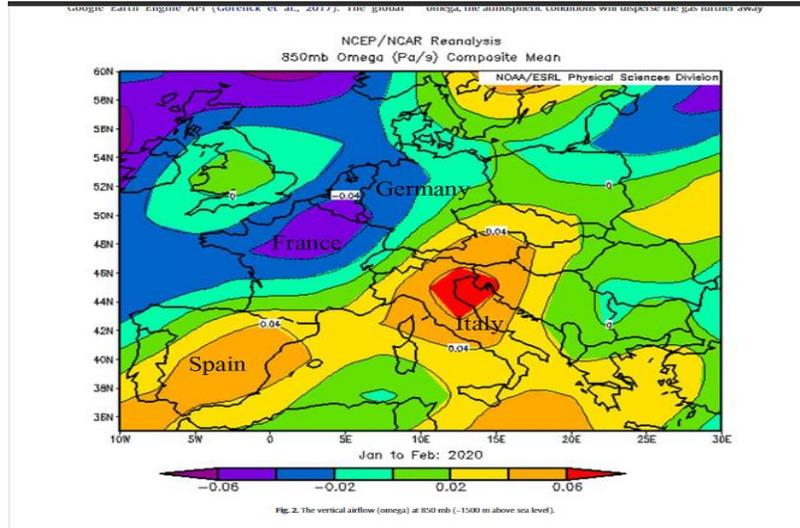
Bo Pieter Johannes André, Strategy, Analytics, Financing Solutions and Knowledge, World Bank

Air Pollution Exposure and COVID-19: Evidence and Unanswered Questions, June 11, 2020

WORLD BANK GROUP DT4D DISRUPTIVE TECHNOLOGIES FOR DEVELOPMENT

Bo Andree: Expected Covid-19 cases increase by almost 100% when pollution concentration increases by 20%

Ogen: 78% of fatalities occurred in the five regions with the highest concentration of nitrogen oxide (an air pollutant) combined with air flows that prevented the dispersion of air pollution.



Yongjian, Zhu, et al: Significant positive associations of $\text{PM}_{2.5}$, PM_{10} , NO_2 and O_3 in the last two weeks with newly COVID-19 confirmed cases

ies in China. ine the effects of meteorological factors and air pollution on



AIR POLLUTION AND COVID RISK OF INFECTION

Rapid COVID-19 infection spread observed in selected regions of Northern Italy is supposed be related to PM10 pollution due to airborne particles able to serve as carrier of pathogens



Evaluation of the potential relationship between Particulate Matter (PM) pollution and COVID-19 infection spread in Italy

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Fabrizio Passarini - University of Bologna, Italy
Gianluigi de Gennaro - University of Bari, Italy
Alessia Di Gilio - University of Bari, Italy
Jolanda Palmisani - University of Bari, Italy
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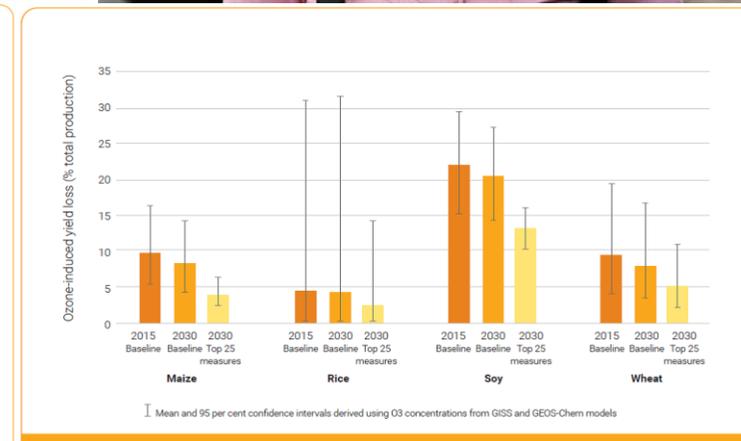
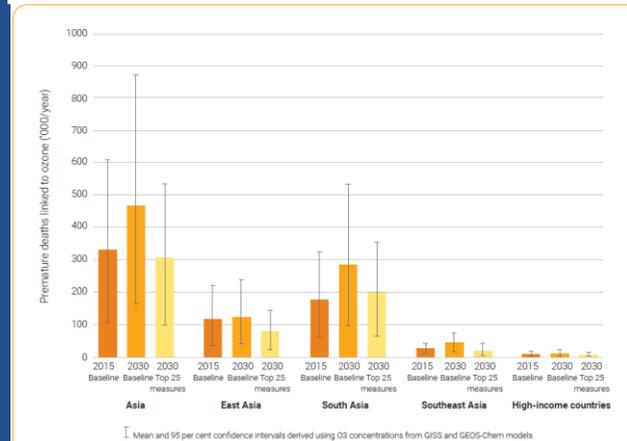
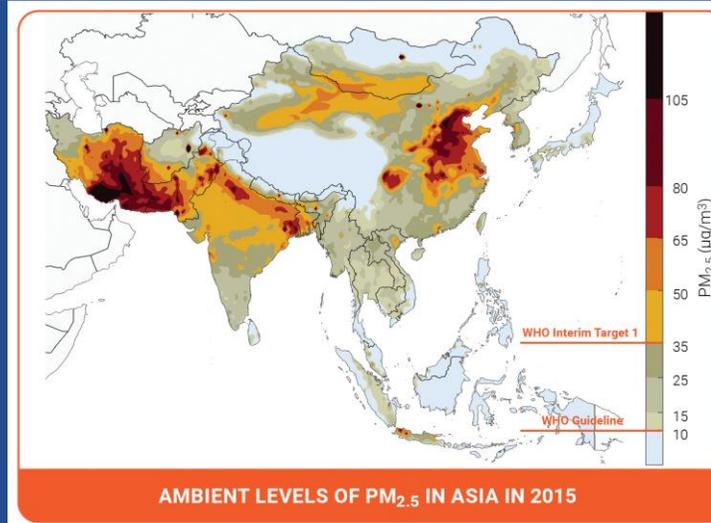


AIR POLLUTION IN ASIA

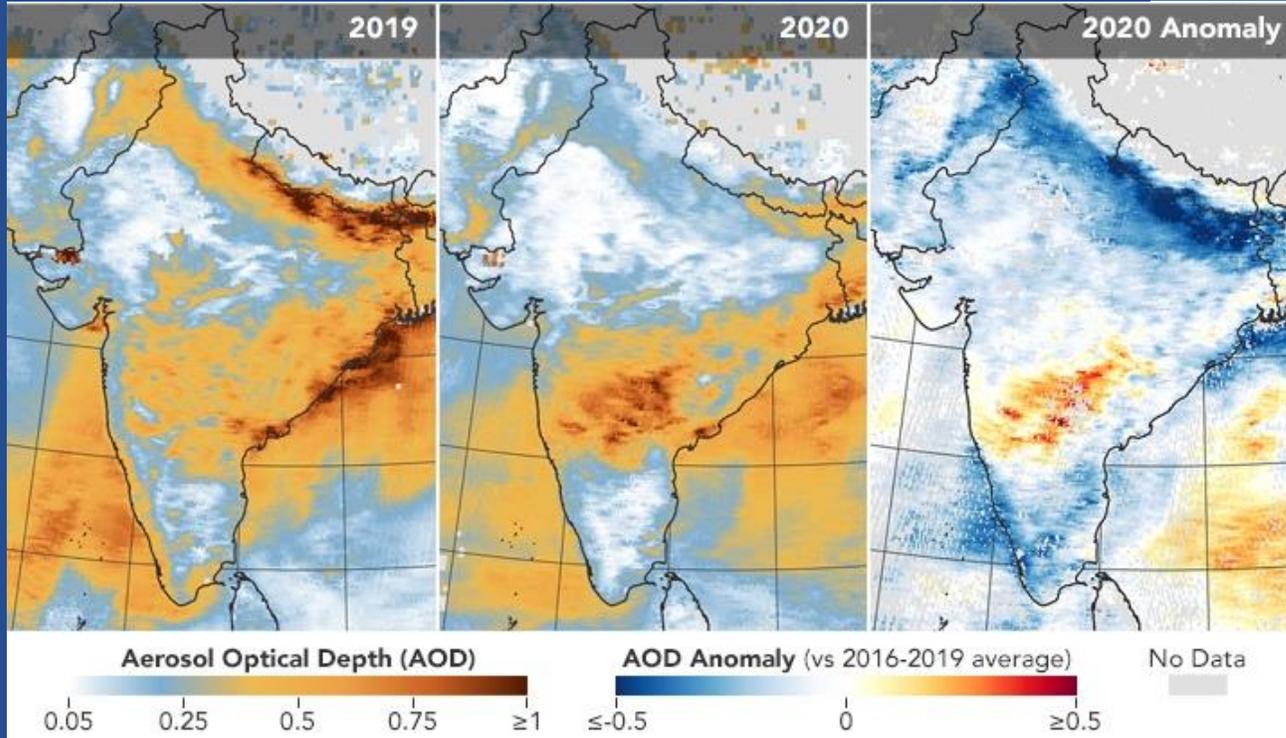


- 92% of Asia and the Pacific's population – about 4 billion people – are exposed to levels of air pollution that pose a significant risk to their health.
- In 2015, the majority of global deaths from ambient (outdoor) air pollution - 35% - occurred in East Asia and the Pacific. About 33% occurred in South Asia.
- Existing policies can reduce pollution - but are not enough to reach safe levels

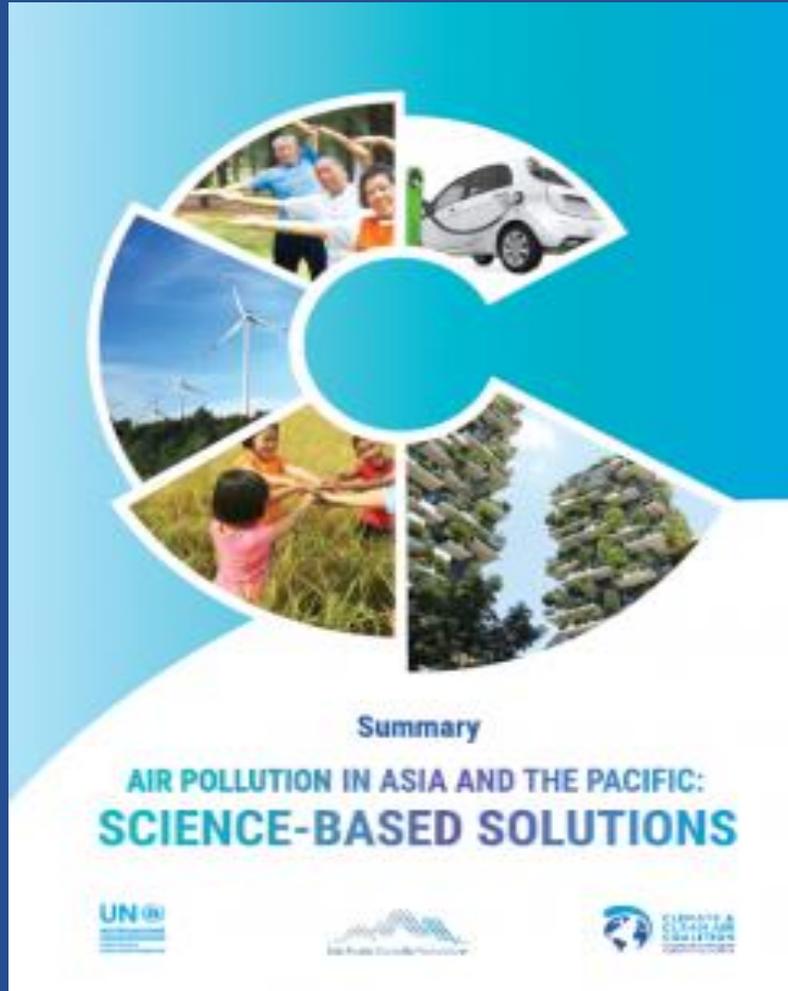
Air Pollution in Asia and the Pacific: Science-based Solutions (2018)



IMPROVED AIR QUALITY DURING LOCKDOWNS



25 CLEAN AIR MEASURES



 INDUSTRY 	 TRANSPORT 
 AGRICULTURE 	 POWER GENERATION 
 RESIDENTIAL COOKING, HEATING AND LIGHTING 	 FOREST AND PEATLAND FIRES 
 WASTE 	 SOLVENTS, OIL AND GAS 
 COOLING AGENTS 	

BUILD BACK BETTER!

EVERYONE HAS A RIGHT TO BREATHE CLEAN AIR

INTERNATIONAL DAY OF CLEAN AIR FOR BLUE SKIES

FIND OUT MORE



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