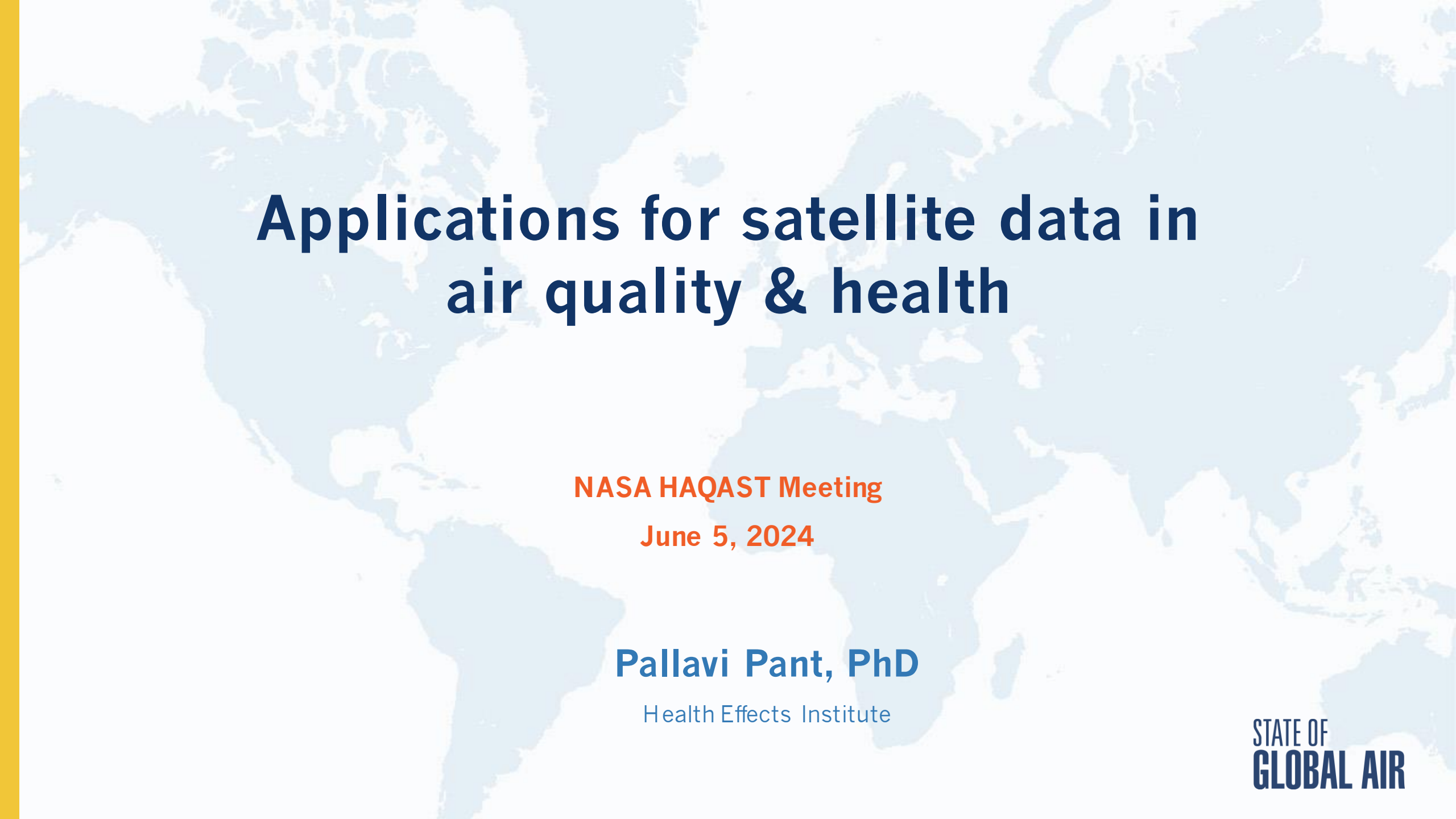


A light blue world map is centered in the background of the slide. The map shows the continents of North America, South America, Europe, Africa, Asia, and Australia. The text is overlaid on the map.

Applications for satellite data in air quality & health

NASA HAQAST Meeting

June 5, 2024

Pallavi Pant, PhD

Health Effects Institute

STATE OF
GLOBAL AIR

A vast majority of the world's population is exposed to poor air quality.

United States

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By Brendan O'Brien and Kanishka Singh

June 28, 2023 6:40 PM EDT · Updated 4 months ago



Aa



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Business > Green Industries

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Thailand's extreme air pollution: 'I feel sorry for my daughter'

Poor Air Quality Is Routine in Many Parts of the World



Climate & Energy | Climate Change | Public Health

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Reuters

August 29, 2023 7:40 AM EDT · Updated 2 months ago



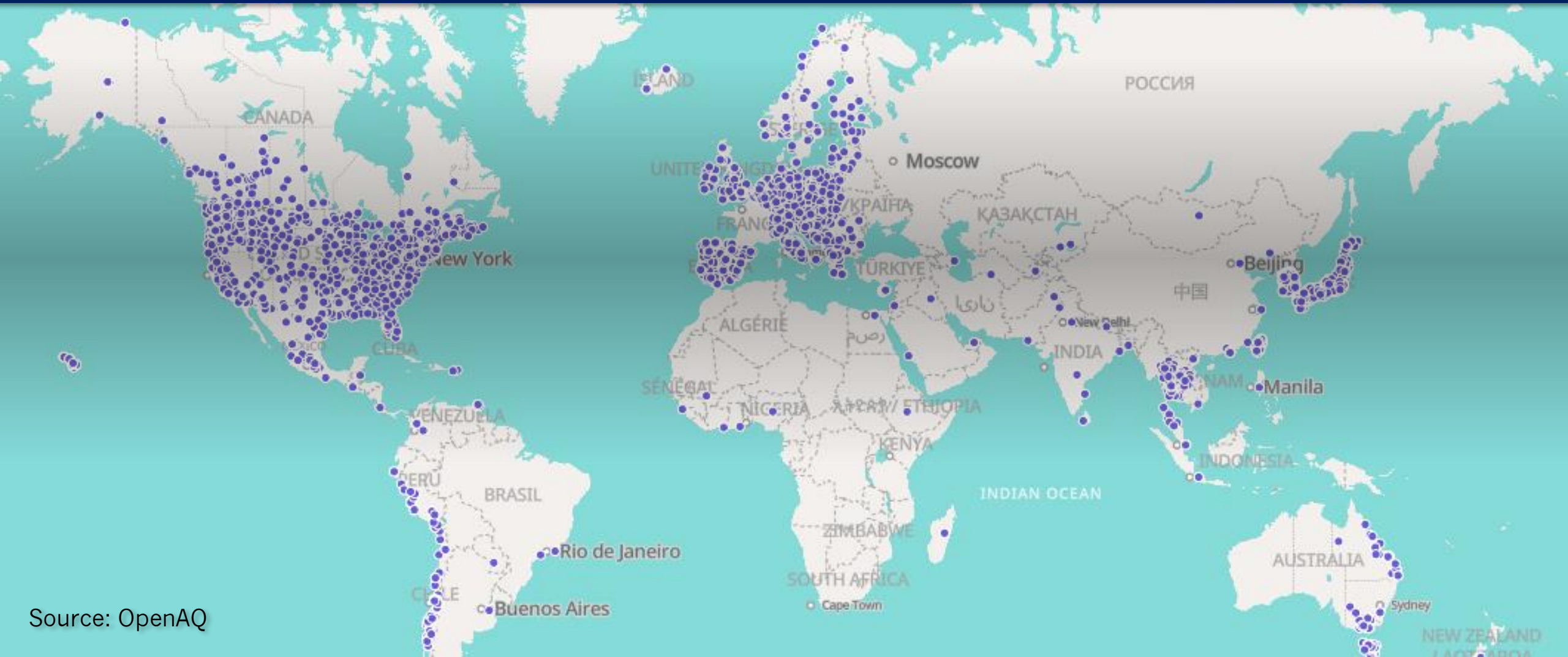
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State of Global Air | March 2022

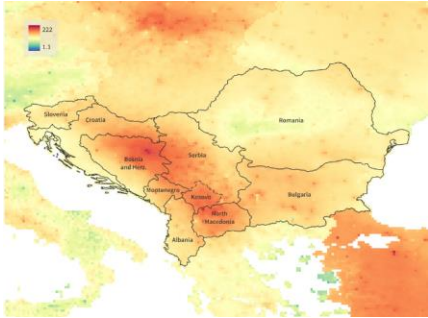
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But access to air quality data remains patchy in certain regions

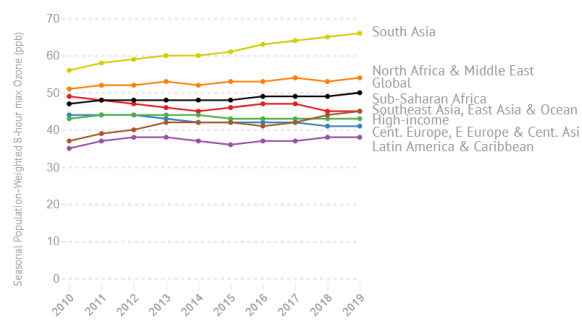


Source: OpenAQ

State of Global Air Initiative



Global assessment of air quality and health impacts; a collaboration between HEI and Institute for Health Metrics and Evaluation (IHME)



Long-term trends in air quality, burden of disease

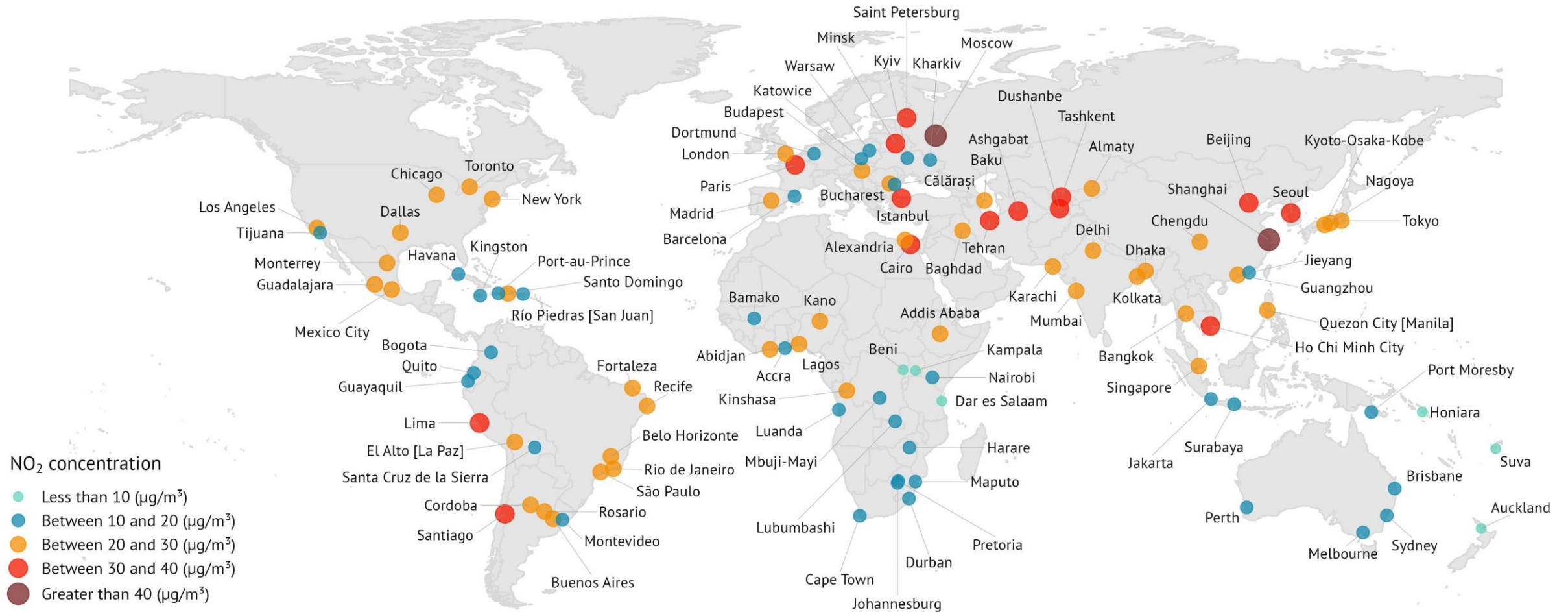
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UPCOMING: June 19, 2024, in partnership with UNICEF

www.stateofglobalair.org

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City-level hotspots for NO₂



In collaboration with Dr. Susan Anenberg

Applications of satellite data: air quality/health impact assessment

Article | [Open access](#) | Published: 22 July 2023

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[Jun Rentschler](#)  & [Nadezda Leonova](#) 

[Nature Communications](#) **14**, Article number: 4432 (2023) | [Cite this article](#)

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Varun Katoch, Alok Kumar, Fahad Imam, Debajit Sarkar, Luke D. Knibbs, Yang Liu, Dilip Ganguly, and Sagnik Dey*

✓ **Cite this:** *Environ. Sci. Technol.* 2023, 57, 48, 19190–19201

Publication Date: November 13, 2023 ✓

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Ashenafie Bereded Shiferaw , Abera Kumie, Worku Tefera

Published: March 24, 2023 • <https://doi.org/10.1371/journal.pone.0283457>

Applications of satellite data: epidemiology studies



Environment International

Volume 159, 15 January 2022, 107019



Ambient air pollution and acute respiratory infection in children aged under 5 years living in 35 developing countries

[Daniel B. Odo](#)^{a,b}, [Ian A. Yang](#)^{c,d}, [Sagnik Dey](#)^{e,f}, [Melanie S. Hammer](#)^g, [Aaron van Donkelaar](#)^g, [Randall V. Martin](#)^g, [Guang-Hui Dong](#)^h, [Bo-Yi Yang](#)^h, [Perry Hystad](#)ⁱ, [Luke D. Knibbs](#)^{a,j}

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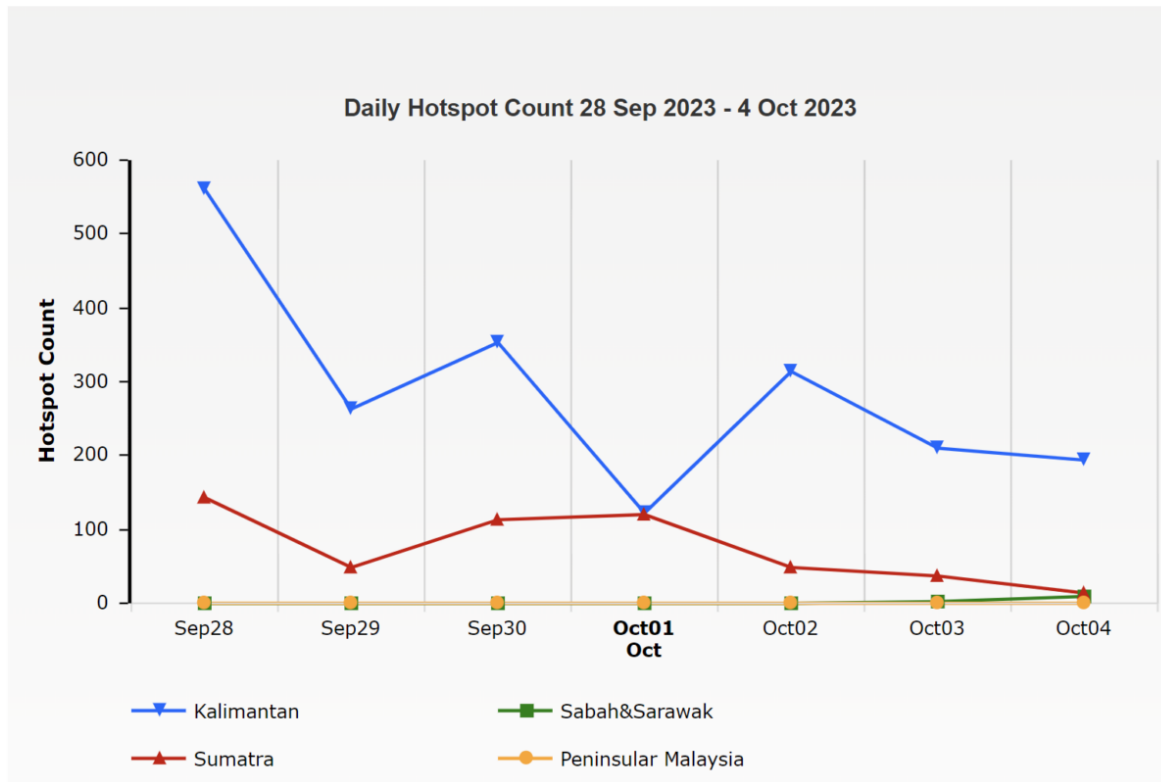
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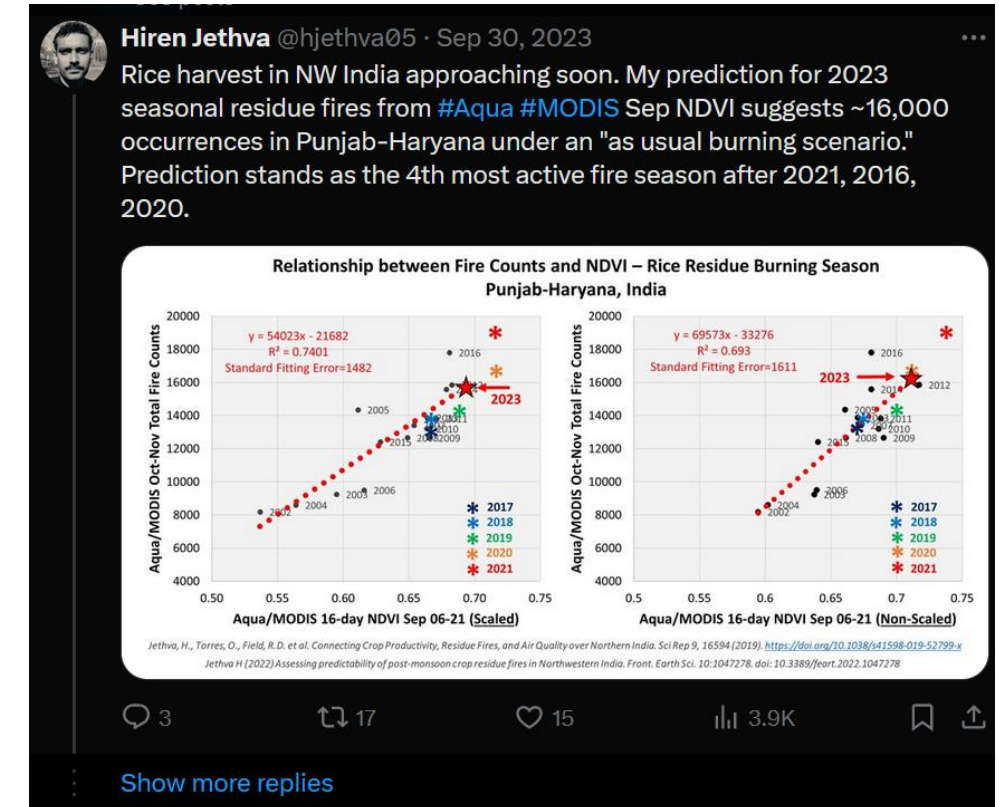
Applications of satellite data: public engagement/informing policy

'Wasn't us,' fire-hit Indonesia claims as Malaysia chokes on poor air quality

by Hans Nicholas Jong on 5 October 2023



<https://news.mongabay.com/2023/10/was-nt-us-fire-hit-indonesia-claims-as-malaysia-chokes-on-poor-air-quality/>



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