

# Creating seamless healthy breathing spaces in India: Role of air quality sensors

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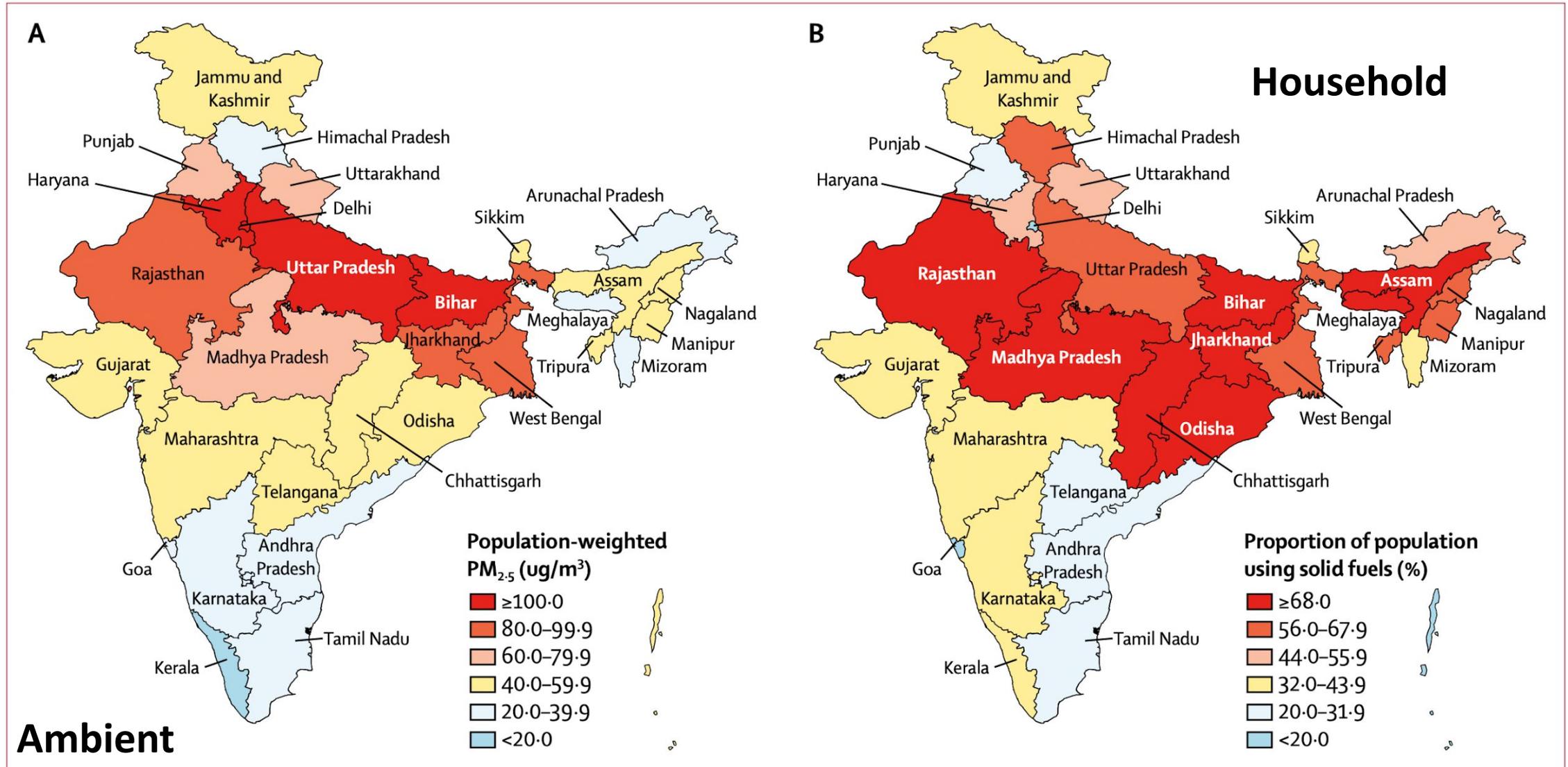
(SRIHER)

Chennai, India

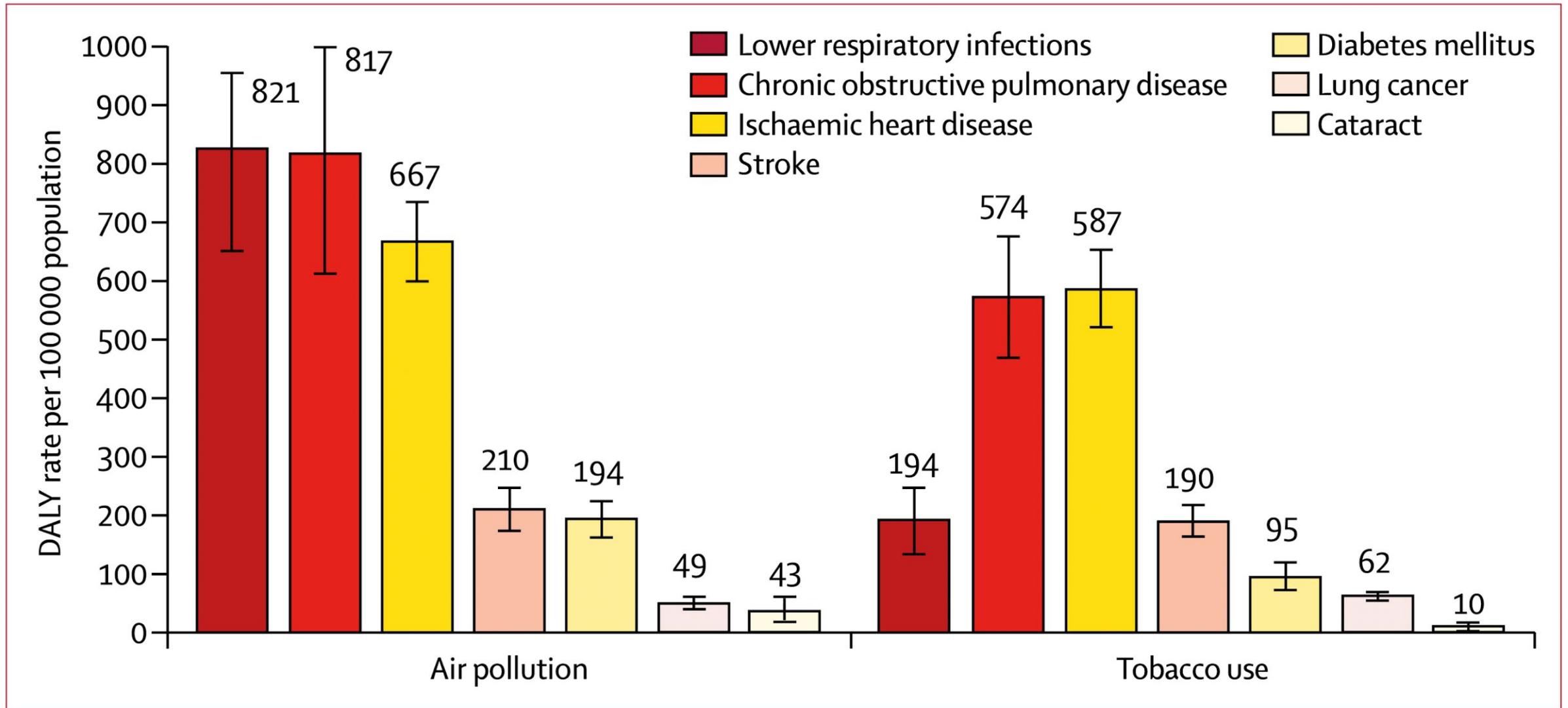
**ASIC 2022**



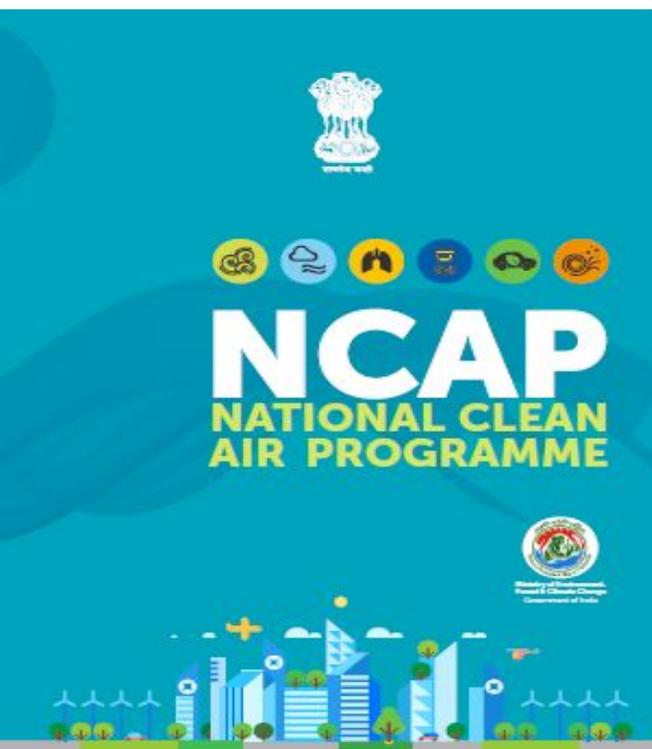
# State level exposures for ambient and household air pollution



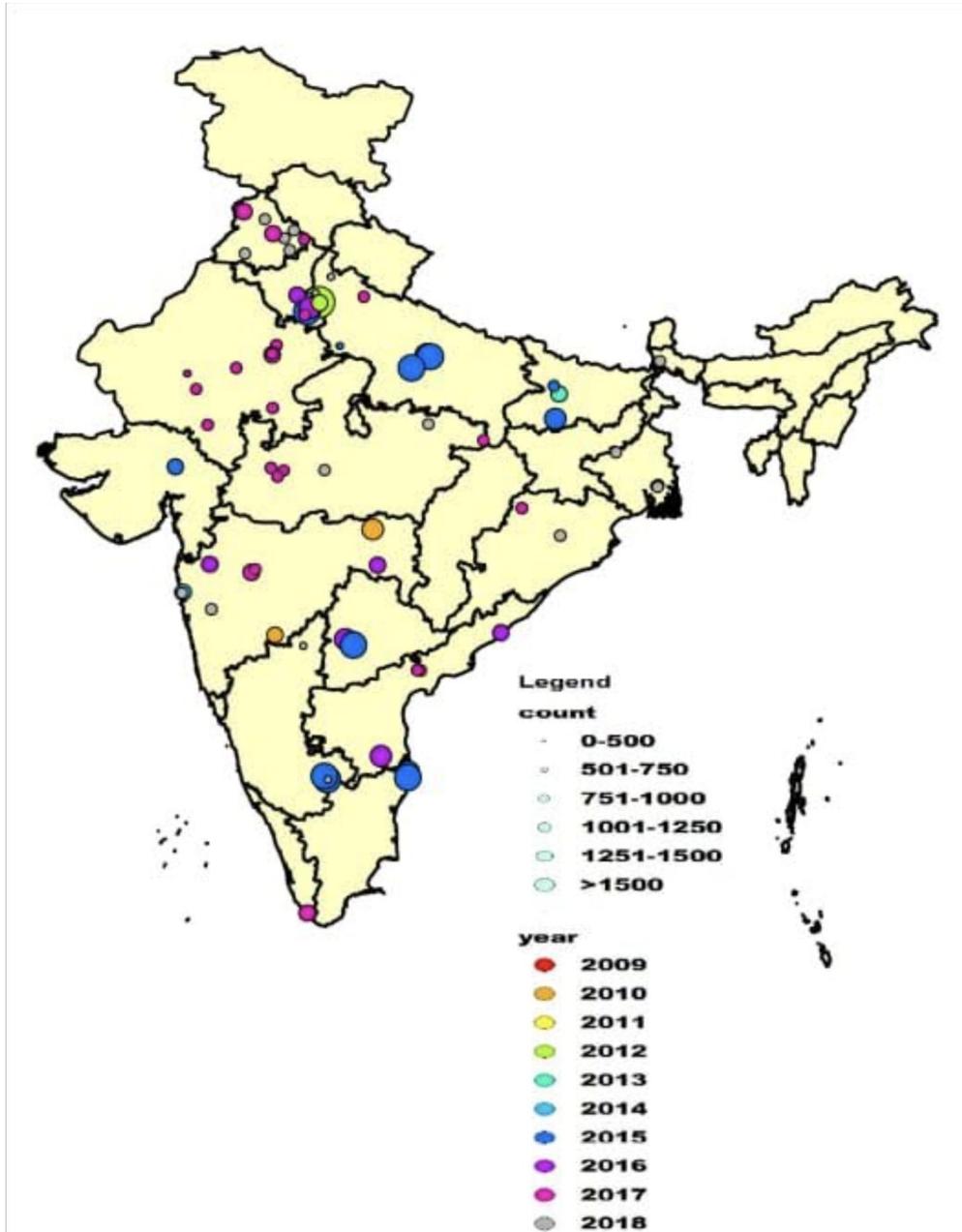
# Air pollution – *the new tobacco*



# Air pollution actions in India



# Why do we need (low cost)air quality sensors in India?

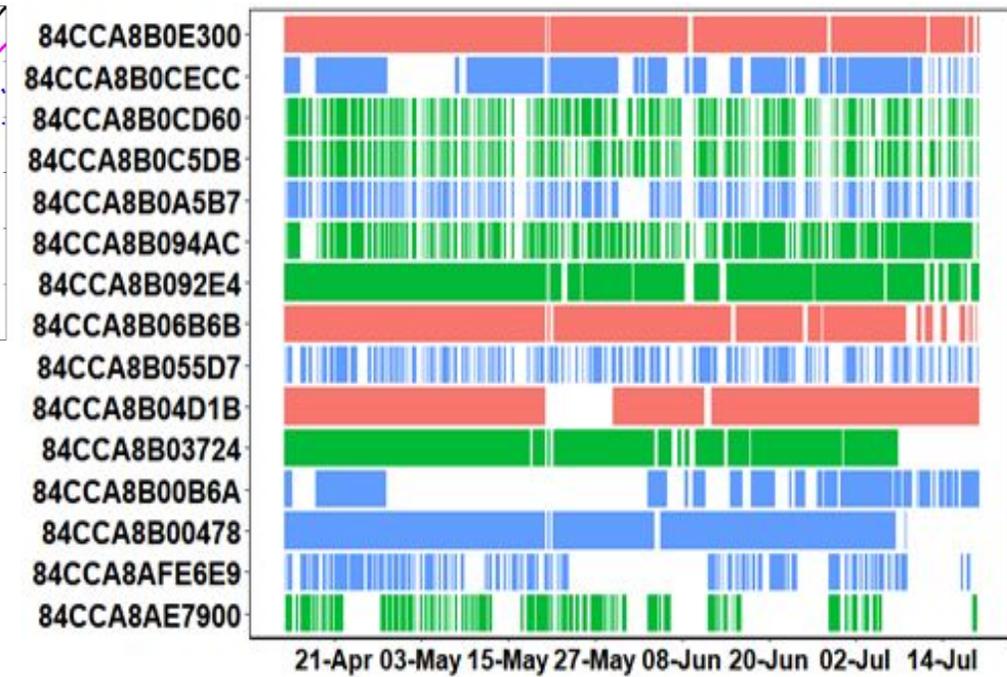
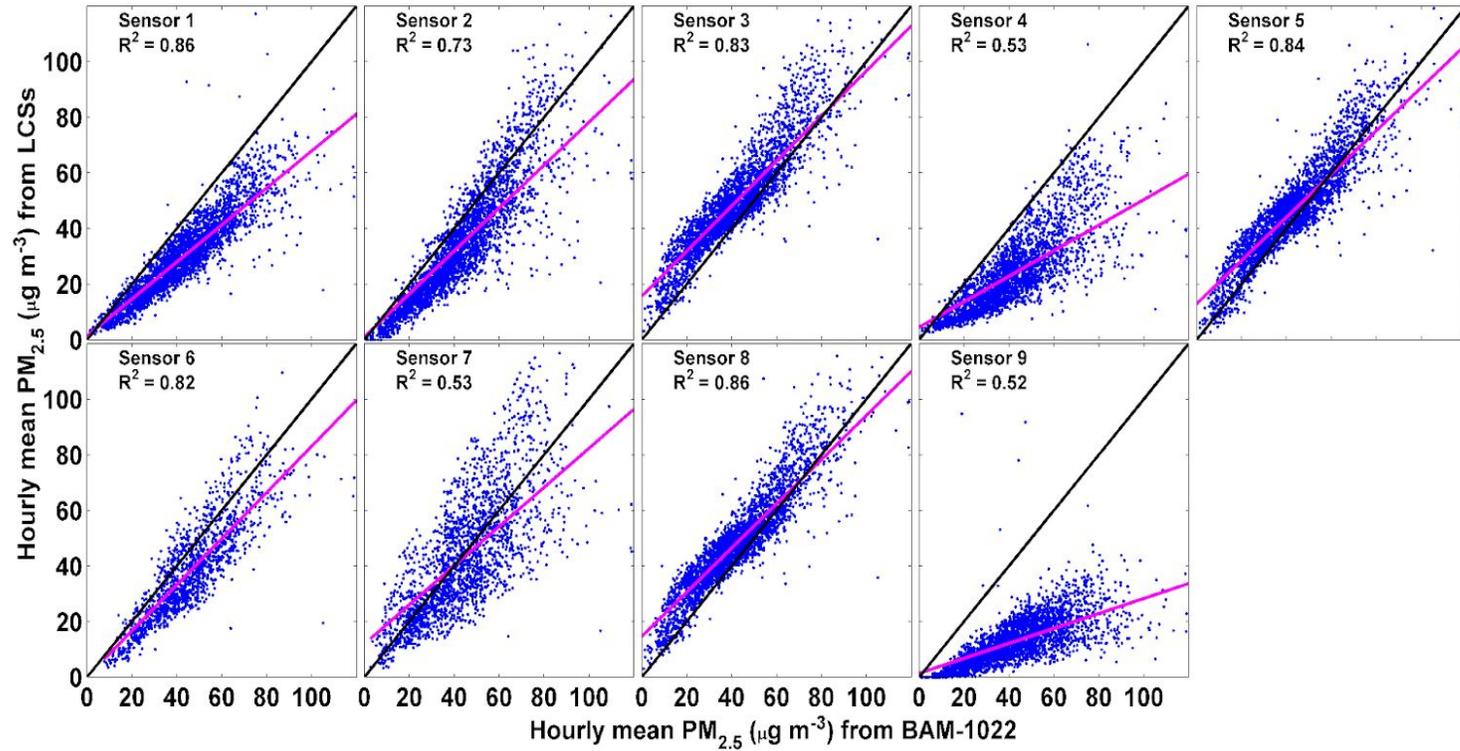


- Disproportionately distributed ground (reference-grade) monitors [Martin et al., 2019]
  - 804 manual monitors
  - 342 CAAQMS
  - All urban sites
- Mean distance to the nearest monitor = 80 km
- 1 Billion USD required to create an adequate network [Brauer et al., 2019]

# What is new about LCS application in India?



# What has been the most challenging component ?



— Ambient — Indoor — Outdoor



# The way forward

- Communication across stakeholders is central for viability of applications
- Greater transparency regarding true cost of certified LCS operation
- Interfacing with ground based networks and satellite based methods for optimal returns
- Significant investments in capacity building
- Responsible risk communication

# Presentations from our group

**Quantifying Long-term Exposures to Fine Particulate Matter (PM2.5) Using Real-Time Low-Cost Sensors in the TAPHE-II Cohort, India**

**Session 1A: Air Sensor Use in India**

Speaker: Naveen Puttaswamy

Wednesday, May 11, 2022 / 10:15 AM – 12:35 PM

**Practical Lessons for Village Sensor Networks from South India**

**Poster Discussion: Group C**

Speaker: Ajay Pillarisetti

Thursday, May 12, 2022 / 09:00 AM – 09:30 AM

## **Grateful Acknowledgements**

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**DEDICATED TO THE MEMORY OF PROFESSOR KIRK R. SMITH, UC BERKELEY**

