



**Opening session:** 

## The Air That We Breathe

World Environment Day 2019: Beat Air Pollution 5 June 2019, ADB





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## **Air Pollution in Asian Cities**

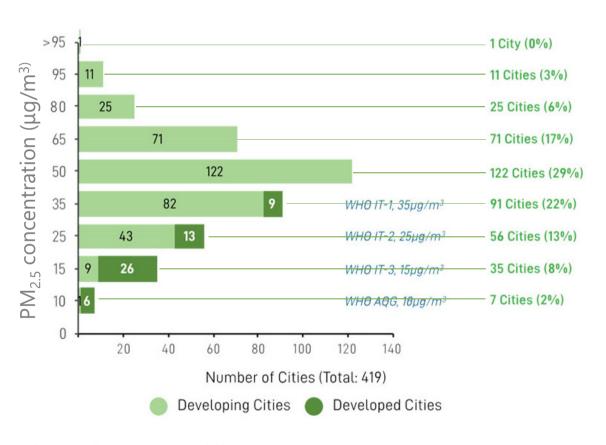
Glynda Bathan, Deputy Executive Director, Clean Air Asia







#### 98% of Asian cities are at risk from the health impacts of PM<sub>2.5</sub> exposure

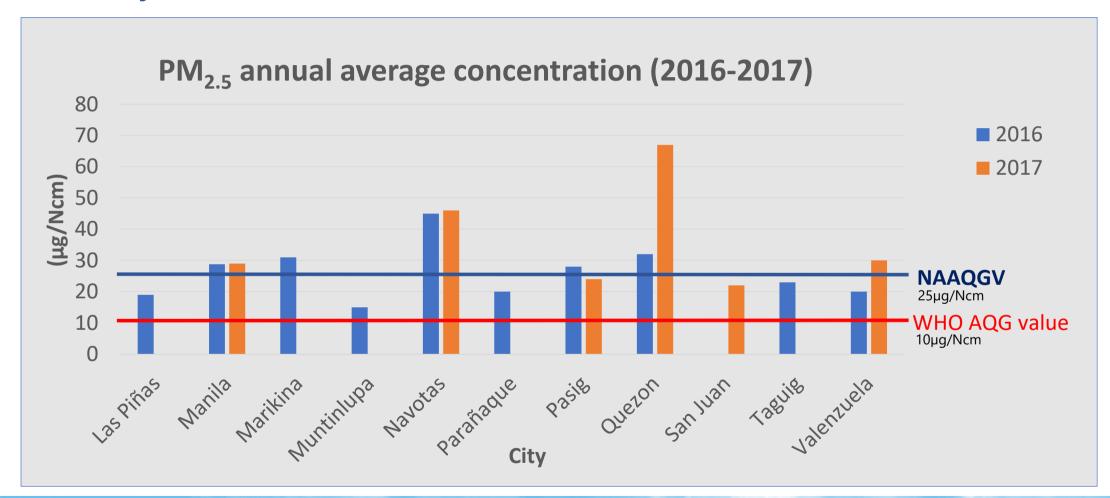


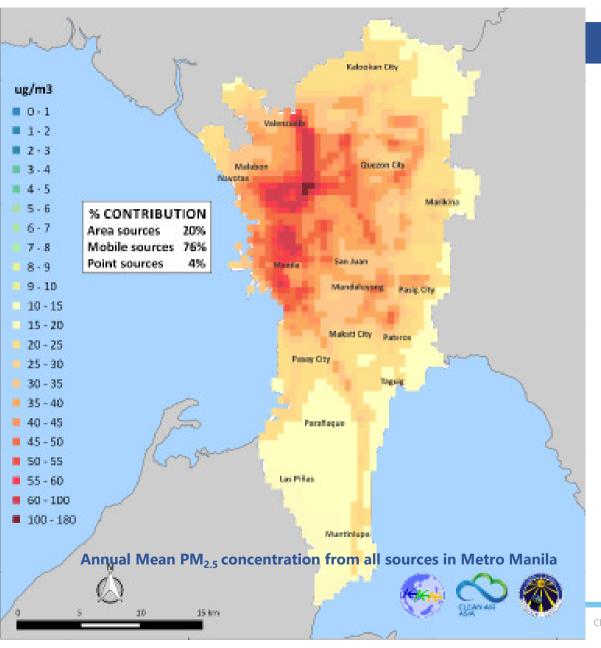
- The annual average in 419 cities in Asia is 40  $\mu$ g/m<sup>3</sup>.
- Only 7 of the 419 cities met the PM<sub>2.5</sub> annual average WHO Air Quality Guideline of 10 μg/m<sup>3</sup>
- Developed cities have demonstrated better air quality management

Data collected from publicly available official sources compiled by CAA. Data for the last available year in the period 2007-2017 (Clean Air Asia, 2018)



#### **Air Quality in Metro Manila**





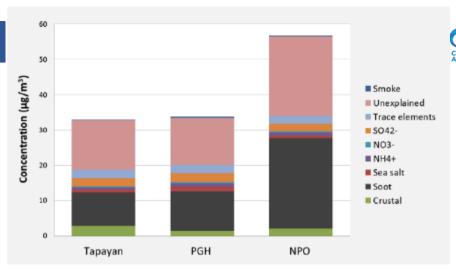
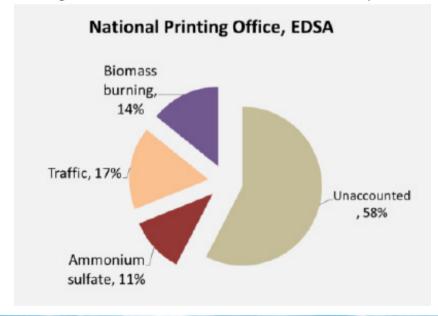


Figure 1. Reconstructed mass of PM<sub>2.5</sub> samples.



Clean Air Asia, et. al. 2016. Modeling Particulate Matter Dispersion in Metro Manila.



Air Pollutants can enter the body through...

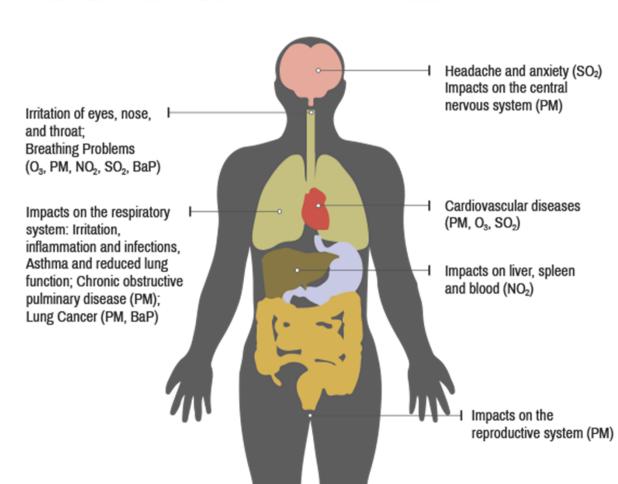
**Breathing**: exposing the nose, throat, and lungs

**Ingestion**: air pollutants can deposit on food or vegetation that will be eaten by humans or livestock

**Absorption:** through the skin.

...and spread their effects throughout the human body

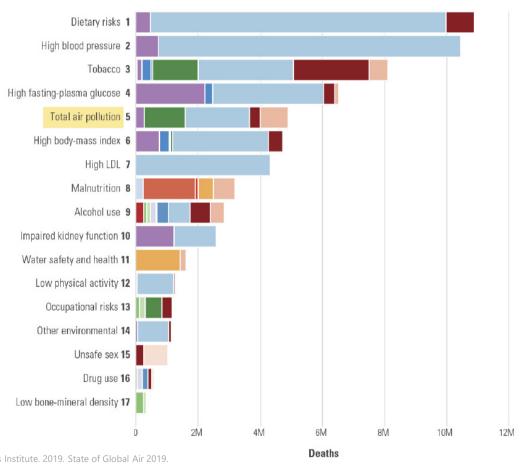
#### **HEALTH EFFECTS OF AIR POLLUTION**



Presentation by Dr. Geminn Louis Apostol, Ateneo School of Medicine, on May 31, 2019 at Consultation Workshop on Stationary Source Standards Review, Crowne Plaza Hotel



#### Air pollution is the 5th leading global risk factor for premature deaths



- Breathing polluted air increases chances of developing heart disease, chronic respiratory diseases, lung infections, and cancer
- Global air pollution is associated with ~5 million deaths and 147 million years of healthy life lost
- Air pollution thus contributed 1 in every 10 deaths in 2017; and reduces life expectancy by 20 months

Health Effects Institute, 2019. State of Global Air 2019.



# Top 10 countries with highest deaths attributable to air pollution in 2017

1.	China	1.2 million
2.	India	1.2 million
3.	Pakistan	128,000
4.	Indonesia	124,000
5.	Bangladesh	123,000
6.	Nigeria	114,000
7.	<b>United States</b>	108,000
8.	Russia	99,000
9.	Brazil	66,000
10.	<b>Philippines</b>	64,000



Health Effects Institute. 2019. State of Global Air 2019.

### THANK YOU!





