

Low-emission initiatives in Philippine cities

Kathleen Dematera Contreras
Environment Researcher
Clean Air Asia

POCACITO WEBINAR
Low-carbon urban developments in Asia: Experiences and outlook
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About Clean Air Asia



Clean Air Asia is an international NGO based in the Global South that promotes better air quality and livable cities by translating knowledge to policies and actions that enable Asia's 1,000+ cities to reduce air pollution and greenhouse gas emissions from transport, energy, other sectors.



Clean Air Asia was established as the premier air quality network for Asia by the Asian Development Bank, World Bank and USAID in 2001, and operates since 2007 as an independent non-profit organization.

Context-setting: Why air quality in Asia?

- **Outdoor air pollution** is *carcinogenic to humans (Group 1)*. Sufficient evidence that exposure to outdoor air pollution causes lung cancer.
- **Particulate matter**, a major component of outdoor air pollution, was also classified as carcinogenic to humans.
- Two-thirds of the global health burden worldwide is found in the developing countries of South, East, and Southeast Asia



Context-setting: Why cities?

Seoul

- 54% of the world's population is residing in urban areas in 2014
- 66% of the world's population will be in urban areas by 2050

Manila

Why Asian cities?

- Asia will become 64% urban by 2050

Shanghai

- More than 1.4 billion people have been added to the Asian population since the 1950s

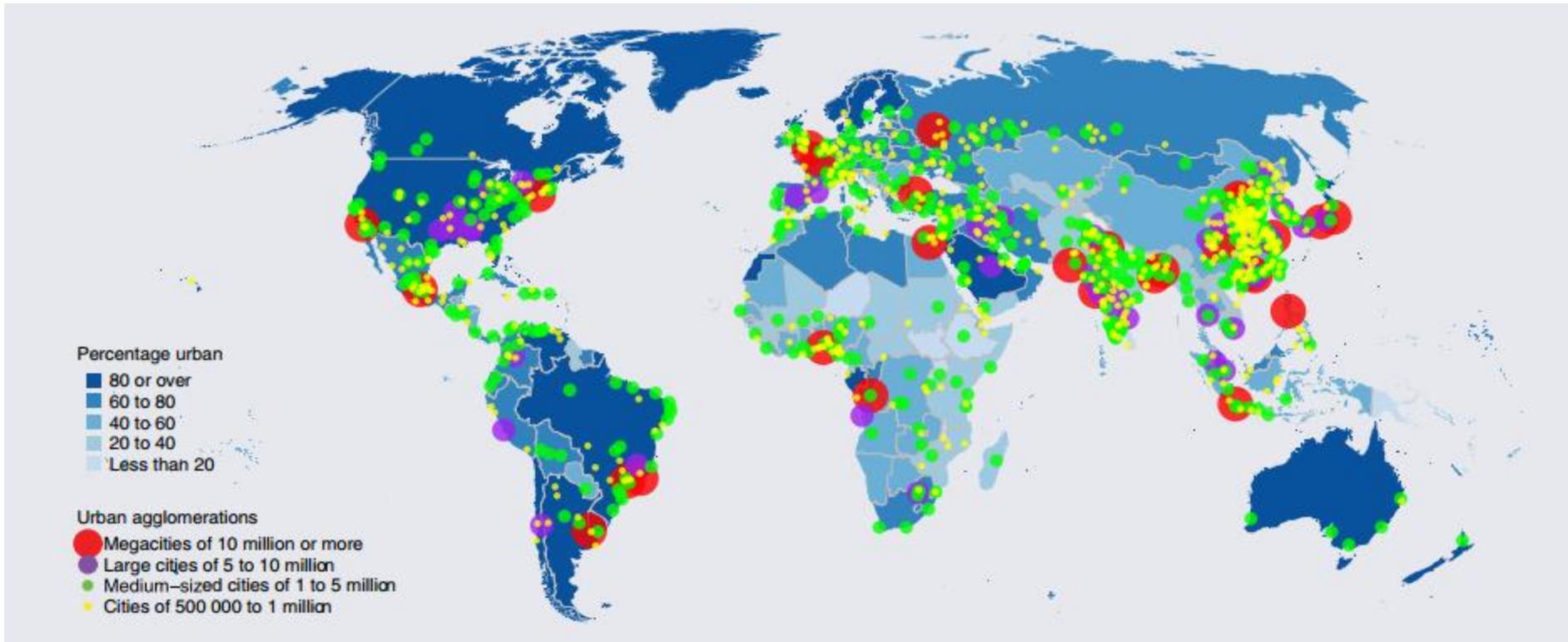
Mumbai

Beijing

Tokyo

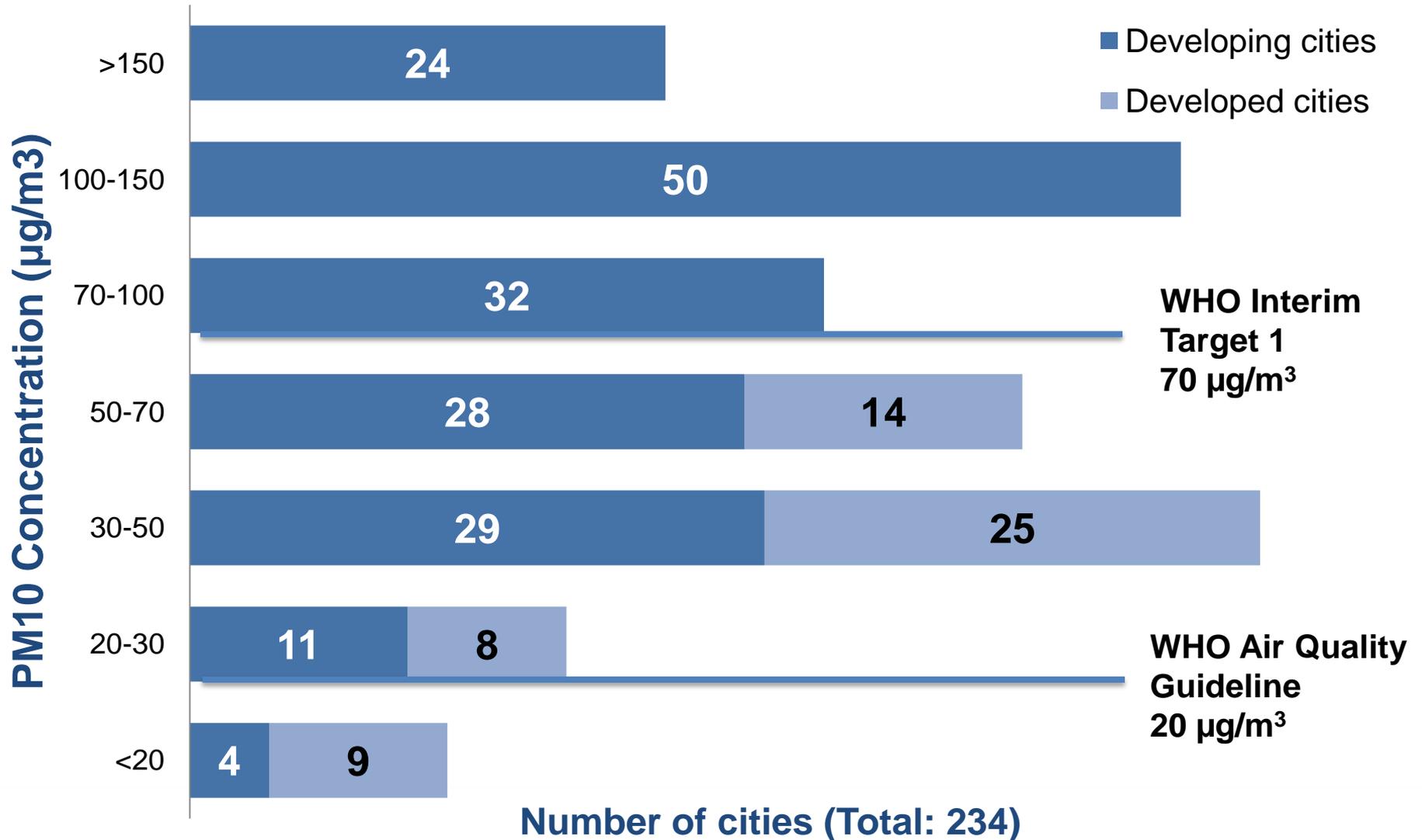
Delhi

Mega-cities



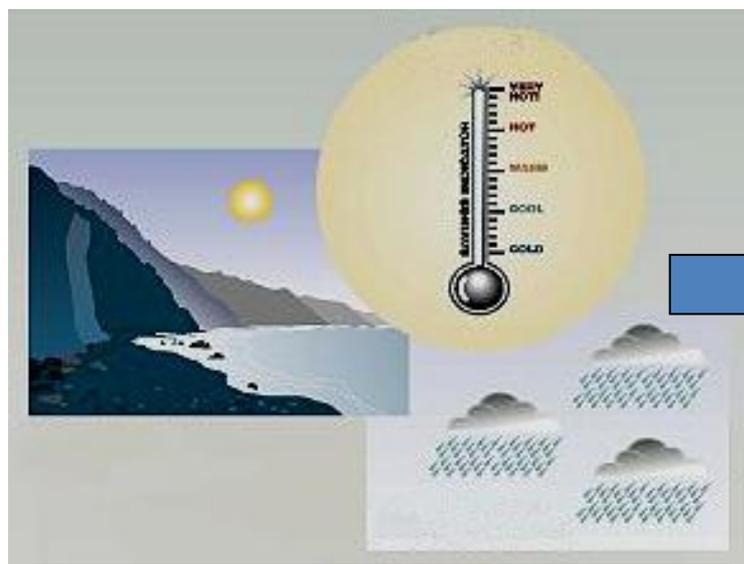
Percentage urban and location of urban agglomerations with at least 500,000 inhabitants, 2014

7 of 10 cities in developing Asia have poor air quality



Climate change is a global problem requiring local solutions

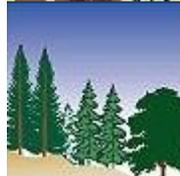
Consequences of climate change:



- > Temperature increase
- > Sea level rise
- > More rain



Agriculture and food security
Crop yields, irrigation demands...



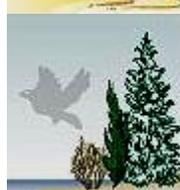
Forest
Composition, health and productivity...



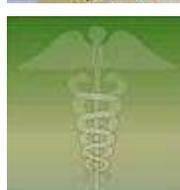
Water resources
Water supply, water quality...



Coastal areas
Erosion, inundation, cost of prevention...



Species and natural areas
Biodiversity, modification of ecosystems...



Human health
Infectious diseases, human settlements...

“Multiple stresses caused by rapid urbanization, industrialization, and economic development will be compounded by climate change. Climate change is expected to adversely affect the sustainable development capabilities of most Asian developing countries by aggravating pressures on natural resources and the environment. Development of sustainable cities in Asia with fewer fossil fuel-driven vehicles and with more trees and greenery would have a number of co-benefits, including improved public health.”

- IPCC (2014). *Climate Change 2014: Impacts, Adaptation and Vulnerability*

Contextual-setting: Why Philippine cities?

- Philippines: 7,107 islands
- Land area: 299,764 sq km
- Metro Manila: the primary political and economic center
 - 16 cities and 1 municipality
 - Population density: 19,137 persons/sq km
- Philippine population density:
 - 308 persons/sq km





Filipino super-typhoon an ominous warning of climate change impact

Philippines is having to adapt and adjust to rapidly deteriorating climatic trends at a great cost to its economy

Simon Tisdall

theguardian.com, Sunday 17 February 2013 16.27 GMT



Thousands of banana trees toppled by Bopha in New Bataan, Philippines.
Photograph: Ted Aljibe/AFP/Getty Images

Is climate change to blame for Typhoon Haiyan?

The Philippines has been hit by 24 typhoons in the past year but the power of Haiyan was off the scale, killing thousands and leaving millions homeless. Is there even worse devastation to come?

John Vidal and Damian Carrington

The Guardian, Wednesday 13 November 2013

 Jump to comments (268)



People walk among the debris of Tacloban, the Philippine city devastated by Typhoon Haiyan. Photograph: Erik De Castro/Reuters



Initiatives in the transport sector

Challenges in institutional fragmentation

- Coordination among institutions
- Frequency of data collection: Project basis or ad-hoc basis
- Disaggregation/ sub-classification of data sets
 - Example: Vehicle population by vehicle and fuel type
 - Comprehensive sub-categorization into vehicle-fuel type is usually not available
 - degree of uptake of alternative fuels, LPG, CNG and electric vehicles is uncertain
- Different terminologies
- Different reporting methods
- Weak monitoring and evaluation

Transport sector

	China	India	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Rail transit efficiency improvements								
Bus rapid transit / Bus efficiency improvements								
Public bicycle-sharing system								

 Existing / Legalized
 Planned / In discussion



**Initiatives in
Clean Air Plans and
capacity-building**

Participatory planning approach for Clean Air Plans



- The Department of Environment and Natural Resources - Environmental Management Bureau formalized their role as National Hub for “Train-for-Clean-Air” (T4CA) in the Philippines pursuant to Special Order No. 2015-991.
- **Train for Clean Air (T4CA)** is a regional training programme implemented by GIZ in the ASEAN Region to **assist cities to develop and implement Clean Air Plans**. Three fundamental pillars include:
 - **Course Development** to familiarise course developers with the Train-X methodology and to develop the T4CA courses.
 - **Training the Course Instructor** to train AQM experts from all over ASEAN to become T4CA course instructors.
 - **Institutionalisation of the Course Delivery** to enhance the capacity of in-country training institutes to effectively deliver the T4CA courses in the long run.

For more information:

DENR-EMB formalized role as National Hub for Train-for-Clean-Air. <http://cleanairasia.org/denr-emb-formalized-role-as-national-hub-for-train-for-clean-air/>

GIZ, *Our Training approach ‘Train for Clean Air’ (T4CA)*, http://www.citiesforcleanair.org/?page_id=40

Training and empowerment at the city level



Course	Target group	Duration
T4CA1: Strategic framework for air quality management	Decision-makers	1 day
T4CA2: Air quality monitoring for smaller cities	Technical officers, researchers, lecturers	3 days
T4CA3: Emission inventories for smaller cities		3 days
T4CA4: Air pollution, air quality: Better information for better action	Community leaders, NGOs, media	2 days
T4CA5: Effective communication strategy for air quality monitoring		2 days
T4CA6: Developing fleet profiles of motorized two- and three-wheelers in your city	City administration section heads and their technical support staff	3 days

A grayscale photograph of a park or campus walkway. The scene is filled with various trees, including a large tree on the left and several tall, thin trees in the center and right. A street lamp is visible on the left side. The sun is shining brightly in the background, creating a lens flare effect. The overall atmosphere is peaceful and natural.

**Opportunities for
global knowledge transfer**

Cities take a keen interest in global knowledge transfer

- **Philippine cities valuing collaboration and learning from other cities e.g. City twinning via Cities Clean Air Partnership's City-to-City Cooperation**

A program under Cities Clean Air Partnership (CCAP) that promotes city-to-city learning and collaboration to drive measurable results through city-level actions.

Available to cities committed to taking action to reduce air pollution.

Volunteer partnering of cities allow exchange information on good practices and innovative solutions to reduce air pollution.

For more information:

<http://cleanairasia.org/ccap/>



Taipei – Pasig (Philippines)



Taichung-San Jose



Bangkok-San Diego

For more information: www.cleanairasia.org



BUSAN, SOUTH KOREA
29 AUG - 2 SEP 2016

www.cleanairforcities.org

Clean Air Asia Center

center@cleanairasia.org

Unit 3505 Robinsons Equitable Tower

ADB Avenue, Pasig City

Metro Manila 1605

Philippines



Clean Air Asia China Office

china@cleanairasia.org

11-152, JianGuoMenWai Diplomatic

Residence Compound, No.1 XiuShui

Street, ChaoYang District,

Beijing 100600 China

Clean Air Asia India Office

india@cleanairasia.org

1st Floor, Building No. 4

Thyagraj Nagar Market, Lodhi Colony

New Delhi 110003

India

Clean Air Asia Country Networks

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Clean Air Asia Center Members



250 Clean Air Asia Partnership Members

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- Environment ministries and government agencies
- Development agencies and foundations
- Non-government organizations
- Academic and research institutions
- Private sector companies and associations

Donors in 2015

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