



# Introduction to CAI-Asia

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11 September 2006

Malé Declaration Stakeholders Meeting

Thimpu, Bhutan



## Why CAI-Asia?

- In 2000 and 2001 there was a growing internal awareness on the need for a regional movement on air quality in Asia
- Emerging consensus that URBAN air pollution was a growing development problem and that it was not ADEQUATEDLY being addressed by any of the multilateral organizations such as UNEP, UN-ESCAP or ASEAN
- CAI-Asia benefited from the experience of the Clean Air Initiative for Latin American Cities which was established about 2 years before CAI-Asia



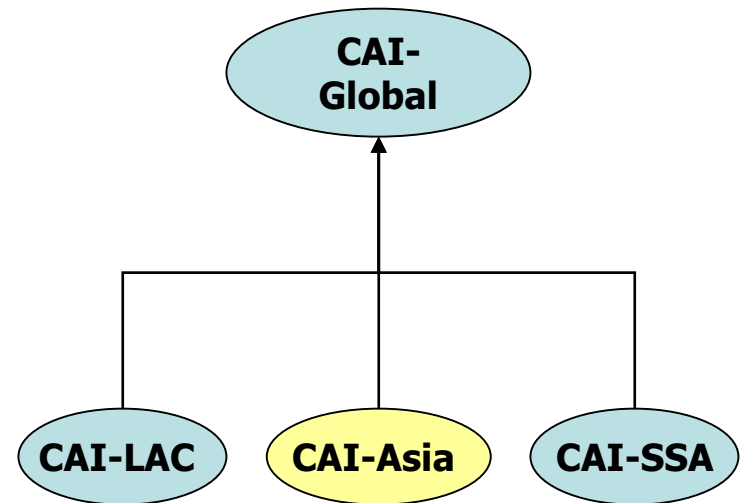


# Goal and Objectives

**CAI-Asia initiates, coordinates, and in selected cases implements AQM initiatives with the aim to improve air quality management and air quality in Asian Cities**

## **CAI-Asia Components:**

- Knowledge Management
- Capacity building
- Policy and regulatory frameworks
- Integrated air quality management policies and strategies
- Piloting projects to encourage innovation





# CAI-Asia Membership

## CITIES

- Dhaka**, Bangladesh
- Chittagong**, Bangladesh
- Phnom Penh**, Cambodia
- Chengdu**, China
- Chongqing**, China
- Hangzhou**, China
- Harbin**, China
- Guangzhou**, China
- Tianjin**, China
- Hyderabad**, India
- Mumbai**, India
- Pune**, India
- Jakarta**, Indonesia
- Surabaya**, Indonesia
- Yogyakarta**, Indonesia
- Ulaanbaatar**, Mongolia
- Kathmandu**, Nepal
- Lahore**, Pakistan
- Islamabad**, Pakistan
- MMDA**, Philippines
- Makati**, Philippines
- Naga**, Philippines
- Singapore NEA**
- Colombo**, Sri Lanka
- Bangkok**, Thailand
- Chang Mai**, Thailand
- Haiphong**, Vietnam
- Hanoi**, Vietnam
- Ho Chi Minh City**, Vietnam

## Government Agencies

- Andhra Pradesh Pollution Control Board
- Balochistan EPA, Pakistan
- Central Pollution Control Board, India
- Department of Energy, Philippines
- Department of Environment and Natural Resources (DENR), Philippines
- Department of Environment, Bangladesh
- Department of Forest, Ecology and Environment, India
- Department of Transportation and Communications, Philippines
- Dhaka Transport Coordination Board, Bangladesh
- Environmental Management Bureau (EMB), Philippines
- Environmental Management Bureau, Ministry of the Environment, Japan
- Environmental Protection Agency (EPA), Afghanistan

- Environmental Protection Department of Hong Kong SAR (EPD)
- Hydrocarbon Development Institute of Pakistan
- Ministry of Environment, Cambodia
- Ministry of Environment, Indonesia
- Ministry of Public Works and Transport, Cambodia
- Ministry of Road Transport and Highways, India
- Pakistan Environmental Protection Agency (Pak-EPA)
- Pollution Control Department (PCD), Thailand
- SUPARCO
- Sindh Environmental Protection Agency
- State Environmental Protection Administration (SEPA)
- Vietnam Register

**56 NGOs and Academic Institutions in the Region**

## DEVELOPMENT AGENCIES

- Asian Development Bank**
- German Agency for Technical Cooperation (GTZ)**
- Government of Finland**
- Government of Japan**
- Government of Norway**
- Government of the Netherlands**
- Hewlett Foundation**
- IUCN - The World Conservation Union**
- Sida**
- The World Bank**
- USAID/USAEP**
- United States Environmental Protection Agency (EPA)**

## FULL PRIVATE SECTOR Member

**Ford Shell**

## ASSOCIATE PRIVATE SECTOR Member

- Asian Clean Fuels Association (ACFA)**
- Corning Incorporated**
- DEKRA AG**
- IPIECA**
- Johnson Matthey**
- MAHA Maschinenbau Haldenwang GmbH**
- SGS (Societe General de Surveillance)**
- Clean Diesel Tech. Inc.**

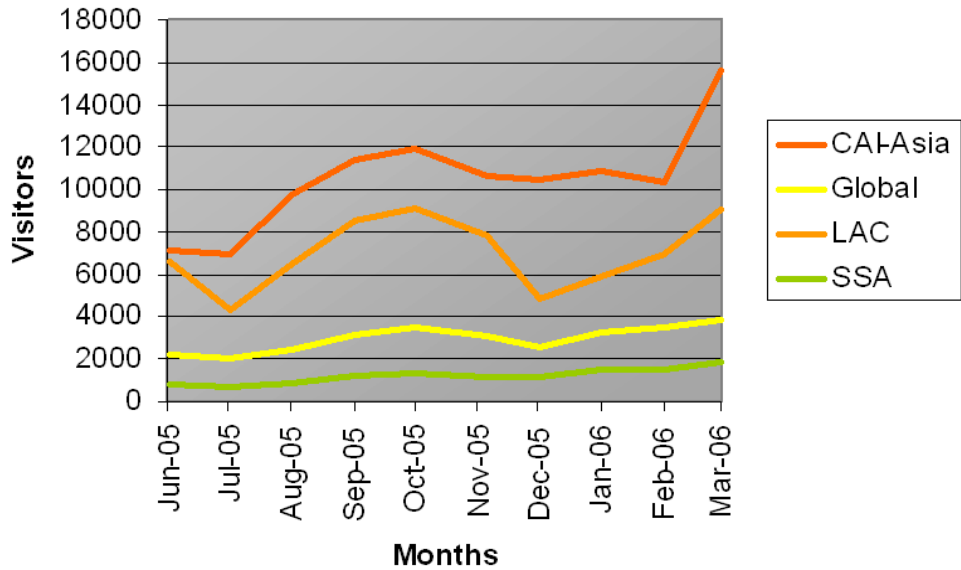


# CAI-Asia: Knowledge Management

[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia) and CAI-Asia Listserv

Key Stats	CAI-Asia
Unique Visitors	20,391
Visits	28,246
Ave. per Day	911
Hits	650,865
Page Views	101,280

Unique Visitors (June '05 to Mar '06)



- Contains more than 3,800 documents and counting ...
- Receives on average 900 visitors per day
- CAI-Asia currently holds big lead over other CAI regional websites
- Effective website is an essential tool in establishing the credibility of CAI-Asia

## CAI-Asia listserv

- The most active listserv on AQM in Asia
- Over 1000 members
- Over 3000 posts since 2002
- Country-specific listserv for local networks also being set-up

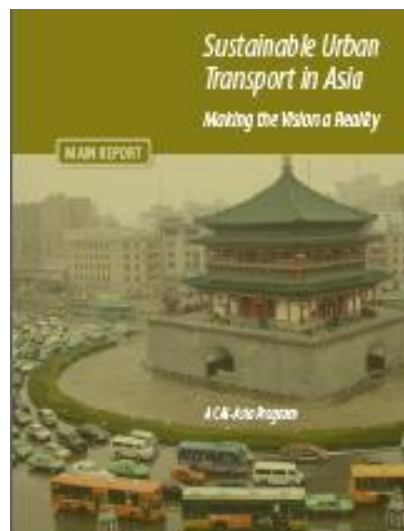




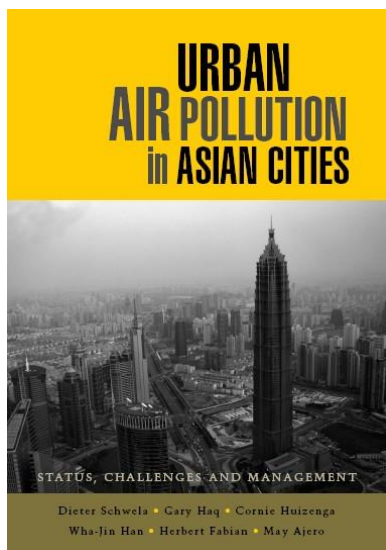
# Knowledge Management Sample Products



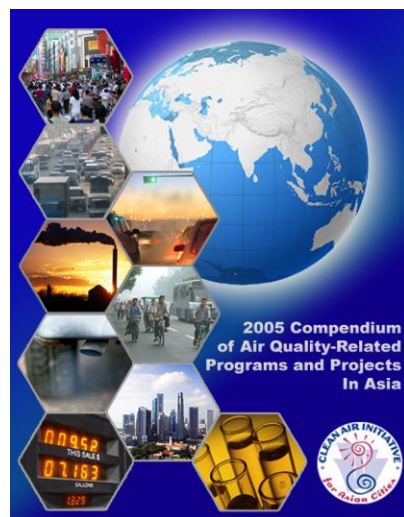
First comprehensive overview of health impacts of air pollution in Asia. CAI-Asia partnered with HEI, which is world leader in this field of research



Understanding Sustainable Urban Transport (SUT) - Helped to build CAI-Asia credibility on SUT and was instrumental for Sida \$2.4 million grant



Benchmarking of Urban Air Quality Management Capabilities in Asia. Allows exchange on lessons learned in addressing air pollution issues

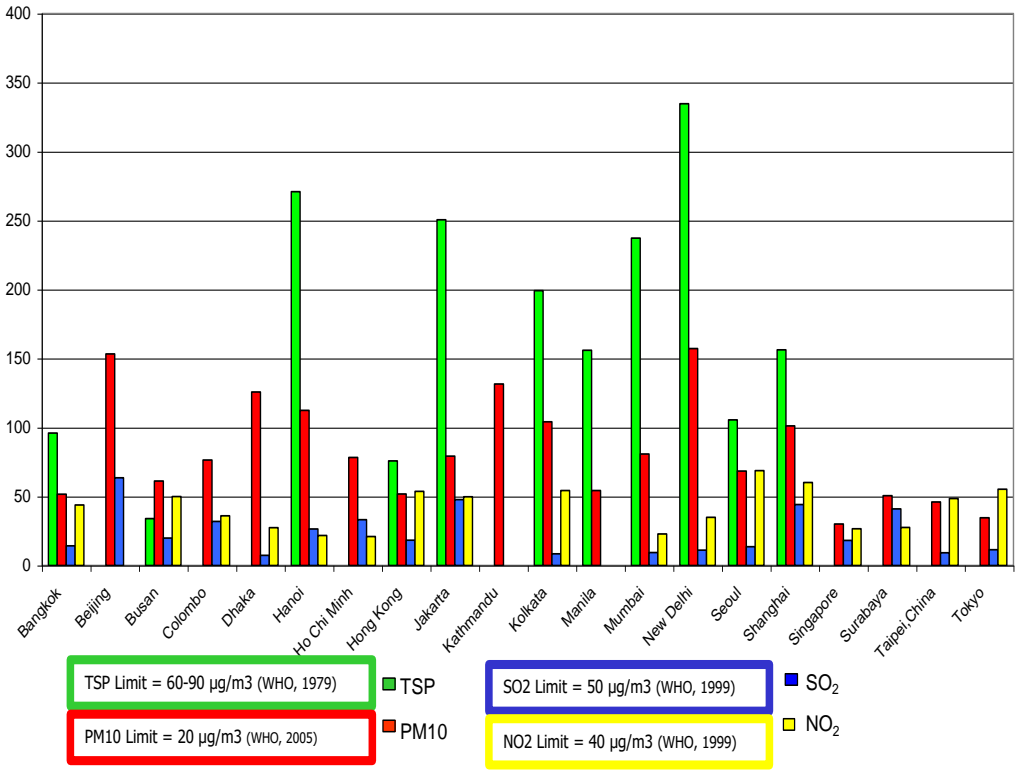


Annual Report documenting all AQM program and projects in Asia. Basis for annual CAI-Asia/UNEP donor coordination forum on AQM

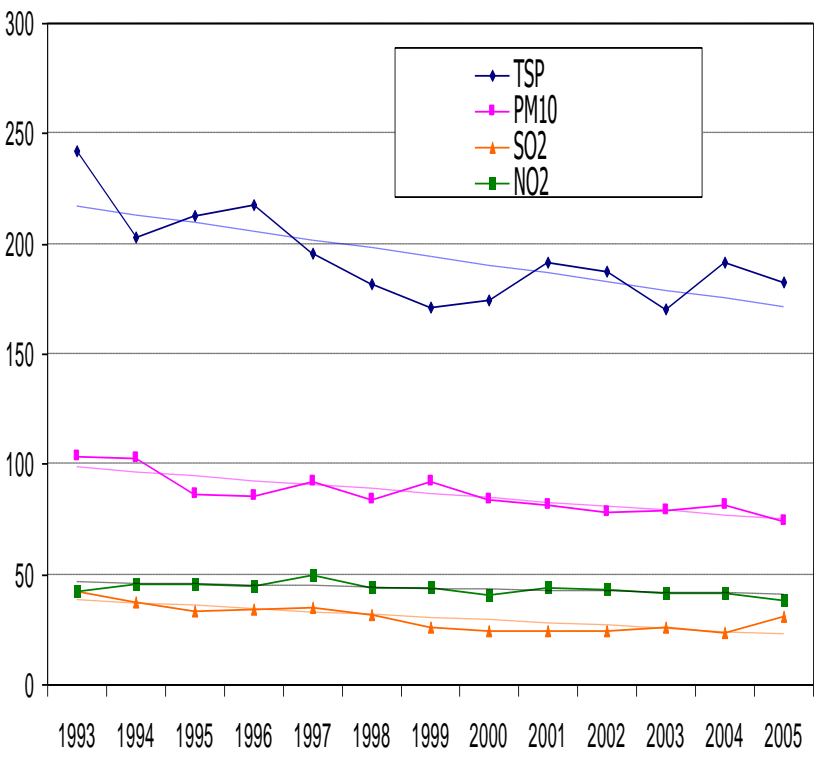


Strengthening the air quality management community in Asia  
[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)

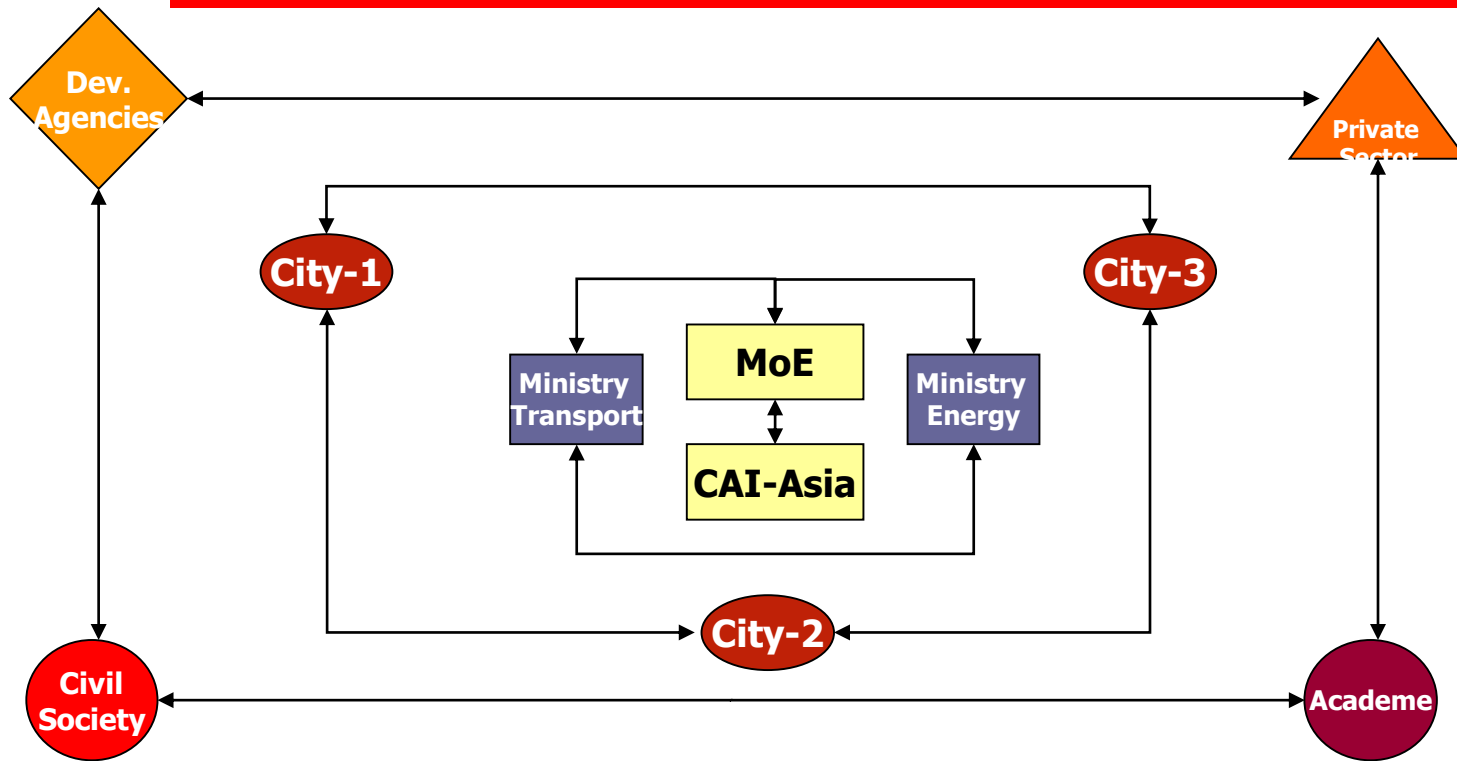
## Average Annual Air Pollution Concentration in selected Asian Cities (2000–2004)



## Trends of Major Criteria Pollutants in Asian Cities (1993–2005)



# CAI-Asia Local Networks (1)



## What active local networks do:

- Networking, knowledge management, capacity building, support policy formulation, implementation
- Represent CAI-Asia at the national level

## Outcomes of CAI-Asia Local networks:

- Strong, united voice calling stakeholders to prioritize better air quality making air quality a priority in the national policy agenda
- Investment patterns become AQM and SUT-friendly and funds become available for AQM and SUT projects







# CAI-Asia Local Networks (2)



## Phase I (2005- Sept 2006)

- China  
**CAI-Asia China Project Office**
- Indonesia  
**Mitra Emisi Bersih**
- Nepal  
**Clean Air Network-Nepal**
- Pakistan  
**Pakistan Clean Air Network**
- Philippines  
**Partnership for Clean Air**
- Sri Lanka  
**CleanAirSL**
- Vietnam  
**CAI-Asia Viet Nam**

## Phase II (Oct 2006-2007)

- Bangladesh
- Bhutan
- Cambodia
- India
- Mongolia
- Thailand

**The ultimate success of CAI-Asia will be determined by the success of its local networks**

Strengthening the air quality management community in Asia

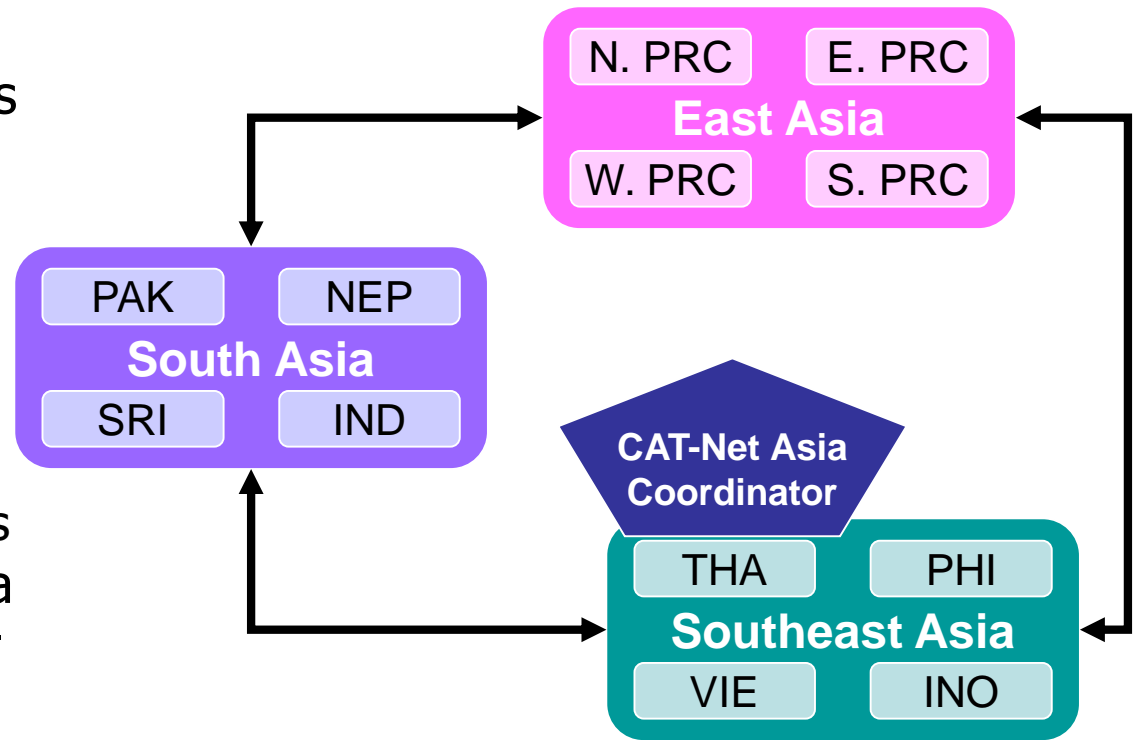
[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)





# Capacity Building – CATNet Asia

- Effective AQM that will make a difference in Asia will require a massive capacity building on AQM
- Current training programs will need to be improved in quantity and quality:
  - Get more training institutions involved
  - Develop more training courses
  - Train more trainers
  - Conduct more trainings
- Develop CATNet Asia as a separate program in CAI-Asia to enhance its sustainability and its impact



- CAI-Asia has created or supported a series of policy forums in Asia to discuss urban air quality management and sustainable urban transport:
  - Annual Dialogue of Air Quality Initiatives (co-hosted with UNEP)
  - Governmental Meeting on Urban Air Quality (co-hosted with UNEP, MoE Indonesia, UNCRD)
  - Annual development partners meetings in CAI-Asia member countries
  - China Sustainable Urban Transport Roundtable





# High Profile Pilot Programs

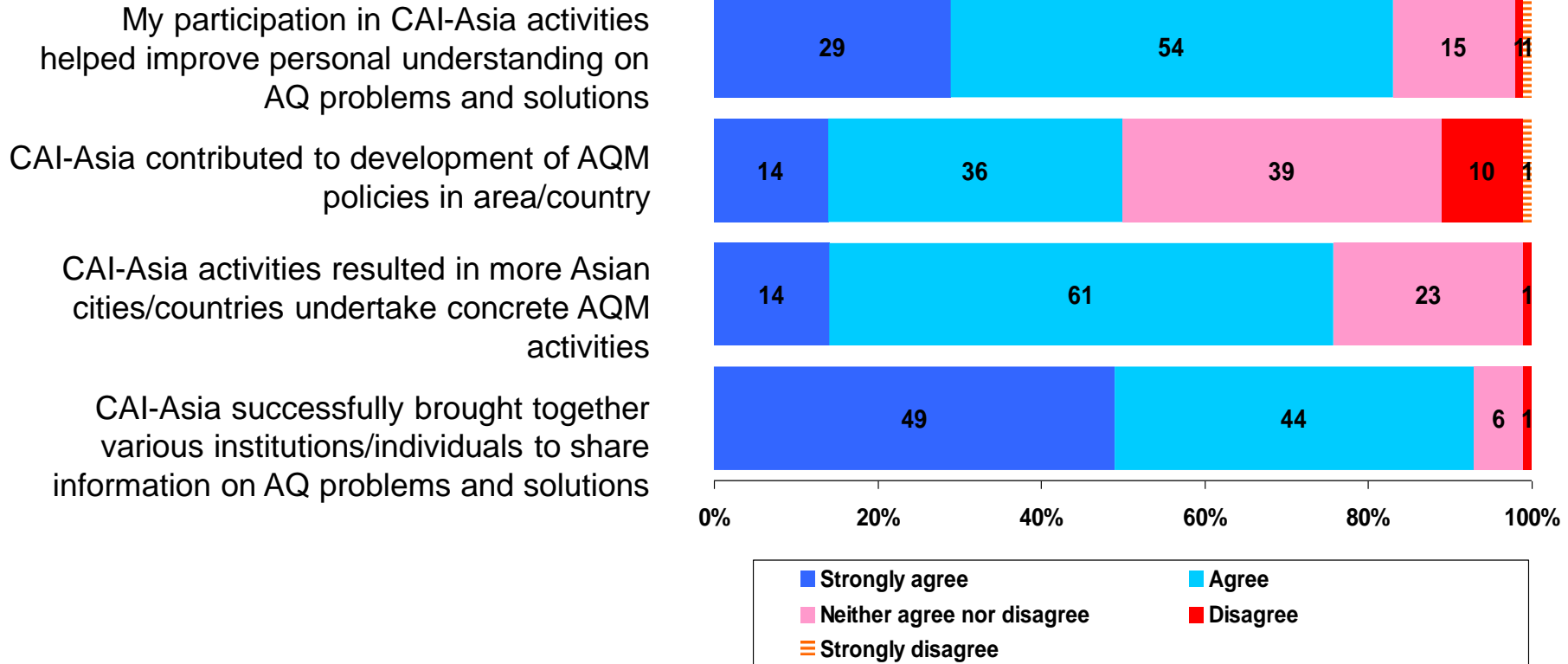
- CAI-Asia has initiated or supported pilot programs whereby implementation is carried out through member or partner organizations
  - Public Health and Air Pollution in Asia (PAPA) Program, implemented through Health Effects Institute
  - Impacts of urban air pollution on crop yields and growth rates in cooperation with Stockholm Environment Institute and Murdoch University (under development)
  - Partnership for Sustainable Urban Transport in Asia (PSUTA) implemented in cooperation with EMBARQ/WRI
  - Sustainable Urban Mobility in Asia (SUMA) - In partnership with SUTP – GTZ, I-CE, EMBARQ, UNCRD-ES, and ITDP
- Pilot programs help to generate credibility, mobilize partners, identify policy scenarios and investment opportunities





# CAI-Asia Evaluation Phase 1

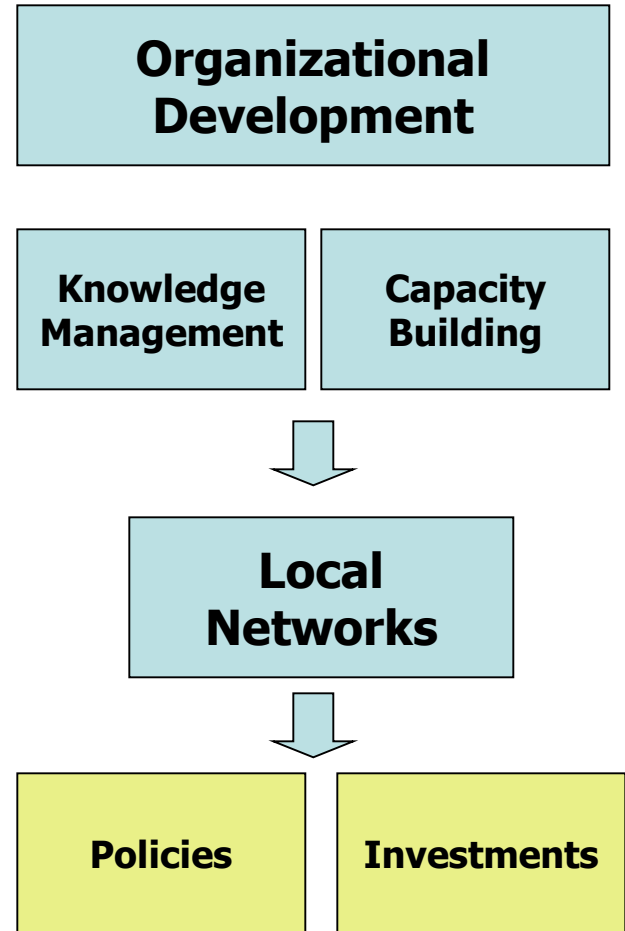
- **CAI Asia has been very effective in promoting understanding of AQ and bringing together various institutions / individuals to share information on AQ problems and solutions**
- **Moreover, it has also influenced cities / countries to undertake concrete AQM activities and to a lesser extent, contributed to the development of AQM policies**





# CAI-Asia's Development

- Phase 1: Awareness raising, knowledge management and influencing local action, scope for improvement in policy and implementation.
- Phase 2 (2005-2006): Two-pronged approach:
  - 1: Establishment and strengthening of local networks in the main countries and cities that are part of CAI-Asia
  - 2: Implementation focus- identification of investment opportunities and policy lobbying
- Phase 3 (2007 -2008): Institutionalization of CAI-Asia through the establishment of CAI-Asia as an independent organization with its own legal identity





## New CAI-Asia Policy Initiatives

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- CAI-Asia is considering to focus on 4 important policy initiatives in the near future:
  - Review and harmonization of ambient air quality standards
  - Adoption and harmonization of cleaner fuel quality standards
  - Promote Energy Efficiency in the Transport Sector including adoption of fuel economy standards
  - Promote co-benefits approach to urban air quality management and climate change mitigation





# Future: Broadening the scope of CAI-Asia

- **Harmonization of national ambient AQ standards**
  - CAI-Asia envisions harmonized NAAQS across Asia
  - NAAQS in Asia in line with new WHO guideline values, EU, US-EPA AQ standards
- **Air Pollution Poverty and Health Project in HCMC (APPH)**
- **Transboundary Air Pollution**
  - CAI-Asia will work with the EPA/EU led Taskforce on Hemispheric Transport of Air Pollution
  - CAI-Asia will continue to work with UNEP and Global Forum on Atmospheric Pollution to integrate urban air quality management with transboundary and regional air quality management
- **Co-benefits of Urban Air Quality Management and Climate Change Mitigation**
- **Stationary and Area sources**
  - Mercury from coal fired power plants – in coordination with US-EPA
  - Methane to Markets
  - Dust and open burning of waste
- **Strengthening the cooperation with CAI-LAC and CAI-SSA and other regional organizations on AQM in Asia**







# Regional actors on air quality management in Asia

<b>Clean Air Initiative for Asian Cities (CAI-Asia)</b> <a href="http://www.cleanairnet.org/caiasia">www.cleanairnet.org/caiasia</a>	All of Asia except Central Asia, the Pacific, and Middle Eastern countries
<b>Acid Deposition Monitoring Network in East Asia (EANET)</b> <a href="http://www.eanet.cc/">http://www.eanet.cc/</a>	Cambodia, Indonesia, Lao PDR, Mongolia, Philippines, Russian Federation, Viet Nam, PRC, Japan, China, Japan, Malaysia, Myanmar, Republic of Korea, Thailand
<b>ASEAN Working Group on Environmentally Sustainable Cities</b> <a href="http://www.aseansec.org/awgesc.htm">http://www.aseansec.org/awgesc.htm</a>	Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam
<b>Asian Environment Compliance and Enforcement Network (AECEN)</b> <a href="http://www.inece.org/aecen">http://www.inece.org/aecen</a>	People's Republic of China, India, Indonesia, Philippines, Singapore, Sri Lanka, Thailand, Viet Nam
<b>Global Atmospheric Pollution Forum</b> <a href="http://www.cleanairnet.org/asia/1412/articles-59846_GAPF.doc">http://www.cleanairnet.org/asia/1412/articles-59846_GAPF.doc</a>	Africa, Asia, Europe, Latin America, North America
<b>Malé Declaration</b> <a href="http://www.rrcap.unep.org/issues/air/maledec/">http://www.rrcap.unep.org/issues/air/maledec/</a>	Bangladesh, Bhutan, India, Iran, Maldives, Pakistan, Nepal and Sri Lanka
<b>Regional Environmentally Sustainable Transport Forum (EST)</b> <a href="http://www.uncrd.or.jp/env/est/regional%20est%20forum.htm">http://www.uncrd.or.jp/env/est/regional%20est%20forum.htm</a>	10 ASEAN countries plus People's Republic of China, Mongolia, Republic of Korea and Japan
<b>Task Force on Hemispheric Transport of Air Pollutants (TFHTAP)</b> <a href="http://www.htap.org/">http://www.htap.org/</a>	Northern Hemisphere
<b>The Programme on Regional Air Pollution in Developing Countries (RAPIDC)</b> <a href="http://www.york.ac.uk/inst/sei/rapidc2/rapidcabout.html">http://www.york.ac.uk/inst/sei/rapidc2/rapidcabout.html</a>	Africa and Asia (focus on following countries: Bangladesh, Bhutan, Maldives, India, Iran, Nepal, Pakistan, Sri Lanka and Malaysia)



Strengthening the air quality management community in Asia

[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)



## How can CAI-Asia work with the other regional actors?

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- Together we are strong(er), on our own we will not have the critical mass to achieve the policy changes required and mobilize the resources to ensure the successful implementation of AQM policies
- Joint fundraising and coordinated implementation can substantially reduce costs of individual organizations
- CAI-Asia is strong in networking and mobilizing, collecting, organizing and documenting AQM related information
- CAI-Asia needs partners to develop formal (inter)governmental policy consensus
- CAI-Asia is looking for tools and instruments for use by its local networks and members





# Better Air Quality (BAQ) Workshops



**BAQ**  
Better Air Quality  
**2006**  
13 - 15 December  
Yogyakarta  
Indonesia

BAQ workshops have had great impact on raising the profile of AQM in Asia. Since 2002 about 2,000 decision makers have participated in BAQ workshops. BAQ workshops have helped to shape policy processes in CAI-Asia member countries and cities.

<http://www.baq2006.org>



Strengthening the air quality management community in Asia  
[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)

- It is expected that over 1,000 key decision makers from more than 35 countries worldwide will participate.
- BAQ 2006 will be held at the Hyatt Regency Hotel in Yogyakarta on 13-15 December 2006.
- It is co-organized by:
  - Ministry of Environment of the Republic of Indonesia
  - Yogyakarta City
  - Yogyakarta Special Region
  - Clean Air Initiative for Asian Cities (CAI-Asia)
- BAQ 2006 will be the largest international workshop on urban air quality in Asia





# Supporting Organizations



Strengthening the air quality management community in Asia  
[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)



# Objectives and Theme

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- Objectives:
  - Review the current status of air quality management (AQM) in Asia
  - Provide updates on emerging trends and challenges in urban AQM in Asia and in other parts of the world
  - Improve the science on which AQM in Asia is based
  - Contribute to the strengthening of the governance structure for urban AQM in Asia
  - Develop stronger stakeholder networks on AQM in Asia
- BAQ 2006's theme is – **A Celebration of Efforts!** – to pay tribute to what has been achieved in air quality management in Asia while highlighting the efforts that are still required to improve air quality in Asia





Plenary Session in BAQ 2004

- Pre-BAQ events will be held on 11-12 December 2006
- BAQ 2006 Sessions will be divided into four major streams:
  - General AQM
  - Mobile Sources
  - Stationary Sources
  - Global Issues

	13 December	14 December	15 December
08.30 to 10.00	<b>Plenary Session</b> Opening Session	<b>Plenary Session</b> AQM In Indonesia	<b>Plenary Session</b> 2006 Asian AQM Champion
10.30 to 12.00	<b>Sub-plenary</b>	<b>Sub-plenary</b>	<b>Sub-plenary</b>
13.30 to 15.00	<b>Thematic Sub-workshops</b> Governmental UAQM Meeting	<b>Thematic Sub-workshops</b> Governmental UAQM Meeting	<b>Thematic Sub-workshops</b> Governmental UAQM Meeting
15.30 to 17.00	<b>Opening the Best Practices Exhibit</b> Governmental UAQM Meeting	<b>Country Sub-workshops</b> Governmental UAQM Meeting	<b>Plenary Session</b> Closing Session
17.00 to 18.00	<b>Reception and Networking Session</b>	<b>Networking Session</b>	<b>BAQ 2006 Closing Party</b>
19.00 to 22.00	<b>Social Event</b>	<b>Social Event</b>	<b>Social Event</b>





# Governmental Meeting on Urban Air Quality in Asia

- The Ministry of Environment of the Republic of Indonesia will co-organize with the United Nations Environment Program (UNEP) and CAI-Asia the first Governmental Meeting on Urban Air Quality in Asia in the afternoons of 13 and 14 December
- Senior government officials and representatives of key stakeholders in Asia will gather with the goal to support the efforts of Asian governments to arrive at more optimal air pollution abatement strategies. Participation is by invitation only.
- In support of the meeting Country Synthesis Reports are prepared for all Asian countries in close cooperation with Ministries of Environment and other local stakeholders
- CAI-Asia will propose important measures that governments can adopt in order to ensure effective AQM in Asian countries
  - Harmonization of ambient air quality standards and air pollution indices (APIs)
  - Harmonization of fuel quality road maps and energy efficiency in the transport sector
  - Co-benefits of urban AQM and climate change mitigation
  - Eco-housing
- **Yogyakarta Statement** is planned which will record the shared concern on urban air quality management, the need for harmonization and the value of sharing information.





- Cash prizes will be given in two categories: Junior (15 and below) and Senior (16 and above). Winners in EACH category will receive the following prizes:
  - 1st place: US\$500
  - 2nd place: US\$250
  - 3rd place: US\$150
- Important dates:
  - Deadline of Entries: 30 March 2006
  - Announcement of Shortlisted Entries: 30 April 2006
  - Announcement of Winners: 15 October 2006
  - Awarding of Overall Champion at BAQ 2006: 15 December 2006





## International Participants

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- We expect participation from most of the Male Declaration countries
- Participation will be mixture of government, NGOs, academe, private sector
- Numbers per country are still being determined but are expected to range from 5-10 for smaller countries to 25-35 for larger countries
- Numbers can go up if additional sources of financing are identified





## For more information

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[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)



# BAQ

Better Air Quality

# 2006

13 - 15 December

Yogyakarta

Indonesia



Strengthening the air quality management community in Asia

[www.cleanairnet.org/caiasia](http://www.cleanairnet.org/caiasia)