



Regional Cooperation on Air Pollution in East Asia in the Context of Recent Trends in Policies and Air Pollution in China

Mark Elder

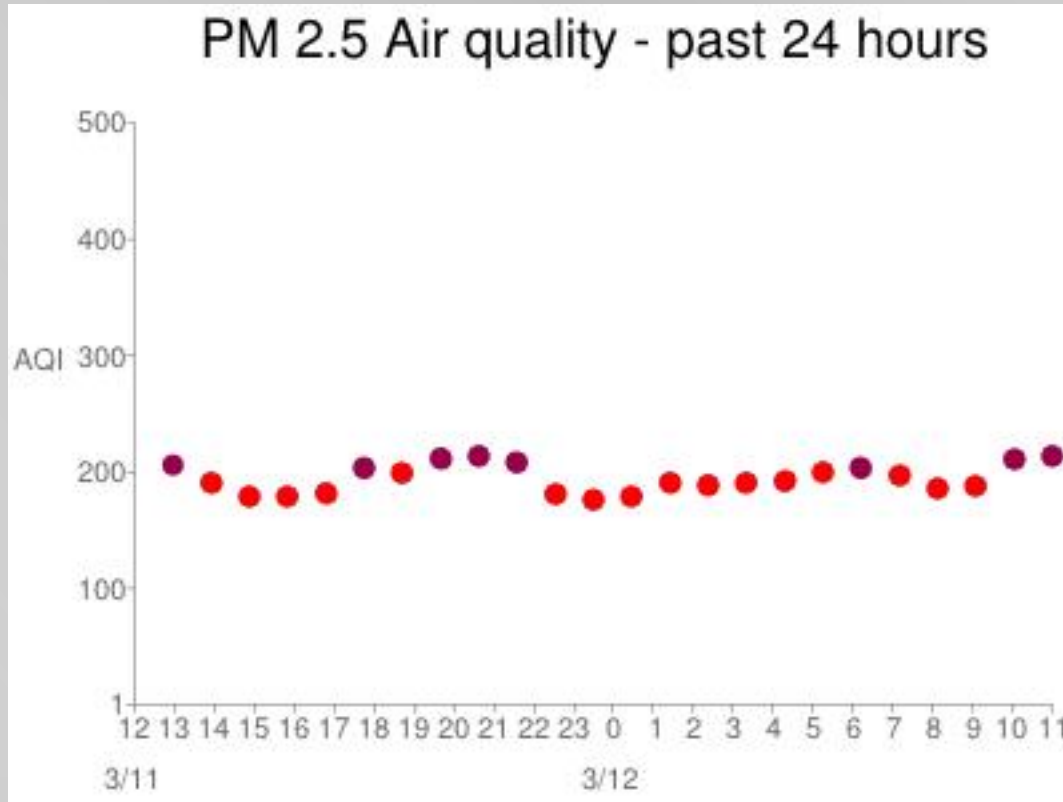
Institute for Global Environmental Strategies

Director, Governance and Capacity Group



Workshop on Japan-China Cooperation on Environmental and Energy issues: Towards Building Low-carbon Society in East Asia
Beijing, March 14, 2013

US Embassy in Beijing – PM 2.5 Air Quality Index



Pollutant: PM2.5 Air Quality Index: 214;
Very Unhealthy (at 24-hour exposure at this level)
Reading Time: 3/12/2013 11:00:00 AM



Some initial observations on recent severe air pollution in China

- This issue is not new (already China's policy priority from 2010/11)
- Not just about
 - PM2.5. Also ozone, SOX, NOX, Volatile Organic Compounds (VOCs), sandstorms
- What is different now
 - More severe peaks
 - Transboundary aspect becoming clearer
 - Domestic damage also increasing
 - More media attention
- It is not just about Beijing
 - (Beijing already took many actions)
 - Pollution from neighboring provinces, sandstorms
 - Some pollutants are now global (ozone)
 - Linked to climate change

➤ It is not just a transboundary issue, it is a priority domestic issue

China's New Stronger Air Pollution Policies

- Overall: air pollution has become a domestic policy priority
- Several new Five Year Plans to address air pollution
- Stronger air quality standards (ambient, vehicle, industrial)
- National Total Emission Control Program
 - Stronger targets for provinces, local governments, industries
- Officials' promotion more strongly linked with environment goals
- Regional management system (Joint Prevention and Control)
- Expanded monitoring
- Significant planned spending/investment for environmental technology
- Blue Sky Science and Technology Project
- Measures taken by the Beijing Municipal Government

Challenges

- Continued resistance by local governments
- Will take time to implement
- Capacity constraints (especially human resources)

Why Greater International Cooperation is Desirable

- Air pollution is increasing overall in East Asia (not just in China)
- Both domestic and transboundary aspects are important
- Need to address multiple issues simultaneously
 - Multiple and secondary pollutants (including interactions)
 - Linkage with climate change
- Need to reduce costs of control measures (e.g. through cobenefits)
- Need to strengthen monitoring of more kinds of pollutants
- Need to strengthen capacity building
- Need more research on air pollution problems (e.g. health effects)
- Strengthen the links between science and policy
- Greater emphasis on reduction/mitigation measures
- Desirable to engage less developed countries like Myanmar before serious pollution

ROLE OF INTERNATIONAL COOPERATION:

1. Facilitate a common understanding resulting in policy actions
2. Actions should be coordinated to enhance effectiveness and efficiency

Overall ways to strengthen international cooperation

Functions	Science Policy Interface		Cooperation Framework	
	Epistemic Community (informal)	Science Panel (formal)	Multilateral	Bilateral
Monitoring	Transnational informal cooperation among scientists to reach common understanding	Could promote	EANET/LTP	Yes
Modeling		Could conduct	MICS/LTP	?
Assessment		Could conduct	EANET (planned)	?
Reduction		Could advise	Needs work	?
Capacity building		Could facilitate	Some; could do more	Yes
Technological cooperation				Future potential

Selected Global and Regional Existing Air Pollution Cooperation Frameworks

ABC	Asian Brown Clouds	Global
CCAC	Climate and Clean Air Coalition	Global
GAP Forum	Global Air Pollution Forum	Global
EANET	Acid Deposition Monitoring Network in East Asia	SE + NE Asia
TEMM	Tripartite Environment Ministers Meeting	Subregional
Joint Forum	Cooperative network of several others	Multi-regional
LTP	Long Range Transboundary Air Pollutants in Northeast Asia	Subregional
NEASPEC	Northeast Asia Program on Environmental Cooperation	Subregional

Membership in Existing Frameworks

Countries	EANET	ASEAN Haze	NEASPEC	LTP
China	●		●	●
Japan	●		●	●
South Korea	●		●	●
North Korea			●	
Mongolia	●		●	
Russia	●		●	
Cambodia	●	●		
Indonesia	●	Not ratified		
Lao PDR	●	●		
Malaysia	●	●		
Myanmar	●	●		
Philippines	●	●		
Thailand	●	●		
Vietnam	●	●		
Brunei		●		
Singapore		●		



Comparison of Selected Existing Cooperation Frameworks on Air Pollution in East Asia

Framework/ Secretariat	Focus/ Functions	Focus/ Pollutants	Challenges
EANET/ UNEP/RRC.AP	<ul style="list-style-type: none">• Monitoring• Research• Cap. Bldg.	<ul style="list-style-type: none">• Acid Rain	<ul style="list-style-type: none">• Difficult to expand the scope of activities, monitoring
ASEAN Haze/ ASEAN Secretariat	<ul style="list-style-type: none">• Information sharing• Capacity building	<ul style="list-style-type: none">• Haze	<ul style="list-style-type: none">• Ratification of all parties• Narrow focus
NEASPEC (coal power plants) / ESCAP-SRO (Incheon)	<ul style="list-style-type: none">• Capacity building• Research• Policy Development	<ul style="list-style-type: none">• SO₂ (China & Mongolia) in terms of air pollution	<ul style="list-style-type: none">• Limited scope of activities.
TEMM	<ul style="list-style-type: none">• Dust & sandstorms• Some joint research	<ul style="list-style-type: none">• DSS• Ozone	<ul style="list-style-type: none">• Focus on air pollution not extensive except for DSS
LTP/ NIER-Korea	<ul style="list-style-type: none">• Monitoring• Modeling• Emission inventories	<ul style="list-style-type: none">• SO₂, NO_x, PM_{10/2.5}, O₃, etc.	<ul style="list-style-type: none">• Is a research project• Has a wider scope of research• Only 3 countries



Overall Problems with Existing Frameworks

- Overall: too cautious and lacking in ambition, voluntary
- Duplication & overlap, extra cost
- Insufficient funding
- Limited effectiveness
- Insufficient scope: need more emphasis on mitigation, linkage between air pollution & climate change
- Should strengthen linkage to policy & implementation
- (Note: existing networks are often linked to specific ministries/departments in member countries; this can hinder expanding the scope.)

Past Efforts to Strengthen International Cooperation in Northeast and Southeast Asia



- **Focused on strengthening each framework individually**
 - ▣ Different countries had different priorities or reservations
 - ▣ Results limited: small changes, no significant expansion of scope, no focus on reduction measures
 - EANET: New Instrument
 - NEASPEC: New review study
 - LTP: Currently discussing new stage
- **Possibility to merge some frameworks**
 - ▣ Differences in geographic scope and focus
 - ▣ Administrative differences and complexity



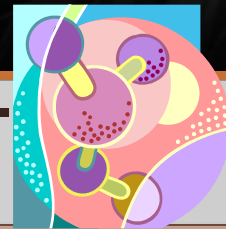
- Emerging common view among countries on the importance of strengthening international cooperation
- But: different views on the best mode of cooperation



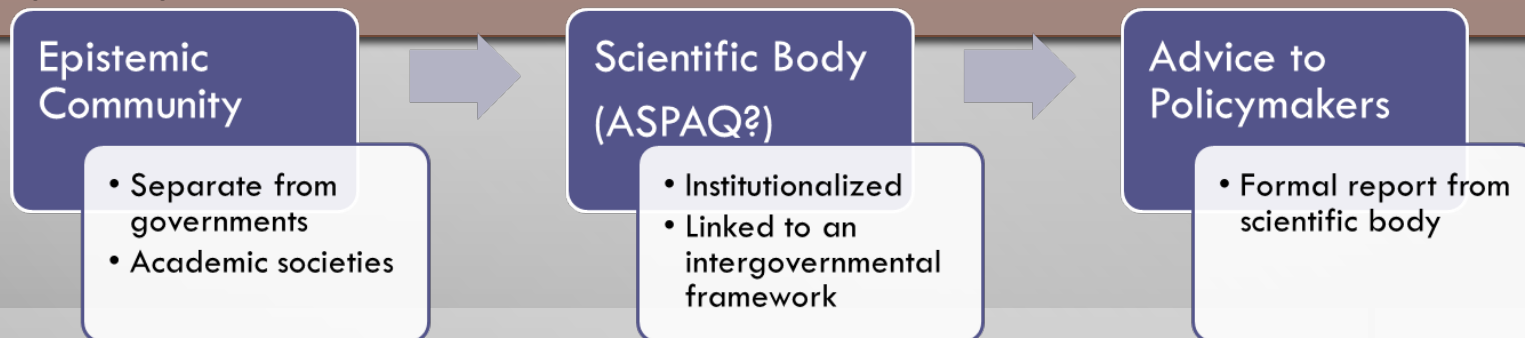
Possible options to strengthen international cooperation frameworks

- Strengthen existing frameworks (use TEMM more?)
- More cooperation among existing frameworks
- Merge/ consolidate existing frameworks (e.g. EANET and LTP)
- Regional or subregional framework using an integrated, multipollutant approach like LRTAP in Europe
 - LTRAP is legally binding, but one in East Asia need not be
- Global convention on air pollution and climate change

Strengthen the Epistemic Community and Science-Policy Interface



- Epistemic community is already developing
 - More scientific conferences in East Asia
 - Beginning to conduct joint research
- Need to develop a common understanding among scientists in the region
 - Transboundary pollution
 - Climate-air pollution interaction
- Need to strengthen other research areas
- Common need to strengthen links between scientists & policymakers



Proposal for an Asian Science Panel on Air and Climate (ASPAC)



- To establish an epistemic community of Asian scientists;
- To develop a common understanding among scientists and policy makers;
- To develop an international initiative for an integrated approach to air pollution and climate change reflecting views of Asian scientists.
- A common approach may be more persuasive to policymakers

**Need to
consider**

- Specific expected functions
- Link with specific framework, structure, members, funding
- Capacity constraints (especially human resources in some countries)

Importance of Co-benefits

- **Definition of Co-benefits**
 - Air pollution community – focuses on climate change
 - Also can consider energy conservation, economic co-benefits
- **Co-benefits**
 - Similar emissions sources and control measures for climate and air pollution
 - Therefore, co-benefit approach is more cost effective
 - Concretely: Short lived climate pollutants such as Black Carbon, ozone, methane
- **Need to include co-control**
 - Some air pollutants are warming, some are cooling
 - Without co-control, air pollution and climate measures might be contradictory

➤ Co-benefits should be promoted through international cooperation

Asian Co-benefits Partnership (ACP)

www.cobenefit.org

- A platform to improve information sharing and stakeholder dialogue on co-benefits in Asia.
- Goal: to support the mainstreaming of co-benefits into decision-making processes in Asia.

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ACP ASIAN Co-benefits Partnership

Asian Co-benefits Partnership

Bringing Climate and Development Together

The Asian Co-benefits Partnership is an informal and interactive platform to facilitate information sharing and stakeholder dialogue on co-benefits in Asia.

11 November

What's New?

2nd Advisory Group Meeting
(July 2011, Yokohama)

**UNU-IAS-IGES-ACP Joint Meeting:
Greening Growth in Asia: Making Co-benefits Mainstream**
(July 2011, Yokohama)

1st Advisory Group Meeting
(July 2011, Kitakyushu)

Launching the Asian Co-benefits Partnership at the Better Air Quality (BAQ) 2010
(November 2010, Singapore)

About

- About the ACP
- Goals
- Major Functions
- Governance
- How to Become a Partner

Activities



Partners

Publications & Tools

- Brochures & Flyers
- Work Plan
- Newsletter
- Conference Proceedings
- Factsheet
- Reports
- Tools

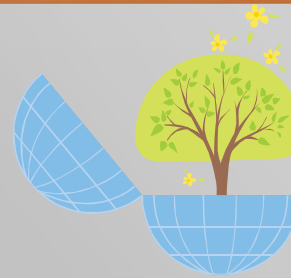
Contact us

Asian Co-benefits Partnership (ACP) Secretariat
The Institute for Global Environmental Strategies (IGES)
2108-11 Kamiyamaguchi, Hayama, Kanagawa, Japan
Tel: +81-46-855-3815 / Fax: +81-46-855-3809
email: acp@iges.or.jp

About this site Site map

The Asian Co-benefits Partnership (ACP) website is hosted and maintained by the Institute for

Conclusions



- China is already strengthening its policy framework, but significant challenges remain in implementation
- International cooperation should focus on implementation issues
- Capacity building should be a major focus, especially human resource training (especially outside of Beijing, Shanghai, and Guangzhou)
- Technological information sharing
- Expanding monitoring capability (especially operations, quality assurance)
- Development of emissions inventories
- Air pollution is a long term problem; resolution needs major structural changes so difficult to reduce quickly even if prioritized
- China may assist other developing countries in the future