Strengthening International Cooperation on Air Pollution in Asia

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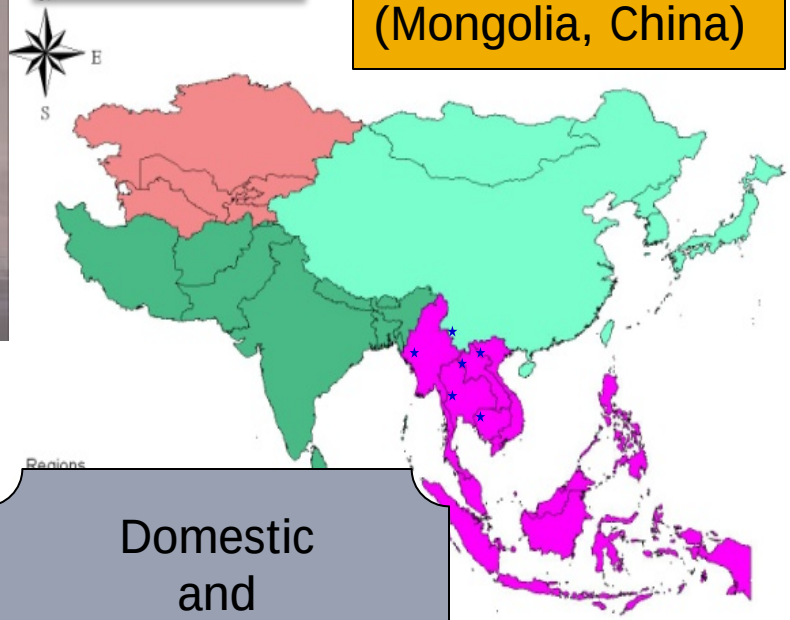
Major Air Pollution Problems in East Asia

Ozone (global)

Coal Pollution (Mongolia, China)

Dust and Sandstorms (N.E. Asia)



Beijing, Northern China, PM2.5 + others

Megacities (autos, industry) (S.E. Asia, China)

Domestic and Transboundary

Haze (ASEAN) (forest fires, agricultural burning)

Climate Change (global)

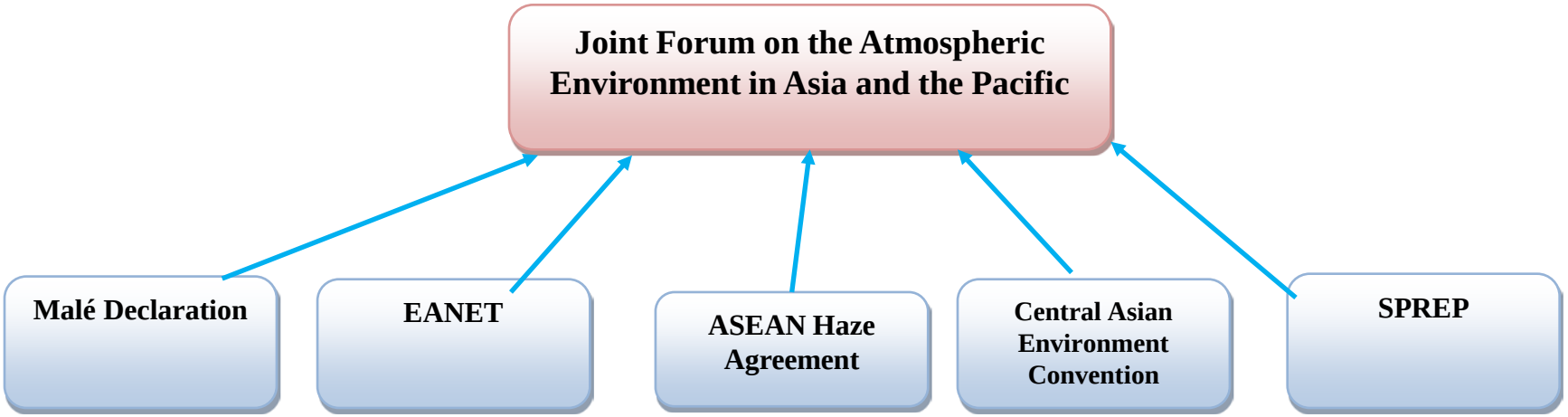
ASEAN economic integration: future pollution from industry, electricity, etc.

Selected Existing Regional Air Pollution Cooperation Frameworks in East Asia

CCAC	Climate and Clean Air Coalition • Global (only Japan & S. Korea in E. Asia)	• Climate/SLCP • Multistakeholder
ABC	Atmospheric Brown Clouds • Global/regional	• Includes air+climate
EANET	Acid Deposition Monitoring Network in East Asia • Northeast + Southeast Asia	• Mainly monitoring • Narrow scope • Intergovernmental
Joint Forum	Joint Forum on the Atmospheric Environment in Asia and the Pacific • Asia-wide	• Network of networks (UNEP)
TEMM	Tripartite Environment Ministers Meeting • Northeast Asia (China, Japan, Korea)	• Intergovernmental • Regular meeting • Collection of projects
LTP	Long Range Transboundary Air Pollutants in Northeast Asia • Northeast Asia (China, Japan, Korea)	• Research project • Broader scope (but not climate)
NEASPEC	Northeast Asia Program on Environmental Cooperation • Northeast Asia (6 countries)	• Secretariat: ESCAP-SRO • Intergovernmental • Project based
CAA	Clean Air Asia (formerly CAI-Asia) • Asia-wide	• Multistakeholder partnership

Joint Forum on the Atmospheric Environment in Asia and the Pacific

Closer cooperation among regional/sub-regional air pollution networks to enhance exchange of information/experiences and capacity building



Meeting of the Joint Forum on Atmospheric Environment in Asia and the Pacific, 10-11 March 2010

Asia Co-benefit Partnership (Overview)

- A platform to improve information sharing and stakeholder coordination on co-benefits in Asia.
- Goal: support mainstreaming of co-benefits into decisions in Asia.
- Partners: ADB, CAA, ESCAP, UNU, UNEP, GAP Forum, China, Indonesia, Japan, Thailand etc.

IGES is the secretariat

Membership in Selected Existing Frameworks

Countries	EANET	ASEAN Haze	NEASPEC	LTP	TEMM	CCAC
China	●		●	●	●	
Japan	●		●	●	●	●
S. Korea	●		●	●	●	●
N. 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	Observations/ Challenges
EANET/ UNEP/RRC.AP	• Monitoring • Research • Cap. Bldg.	• Acid Rain	• Difficult to expand the scope of activities, monitoring
ASEAN Haze/ ASEAN Secretariat	• Information sharing • Capacity building	• Haze	• Legally binding treaty • Not ratified by all members • Narrow focus
NEASPEC / ESCAP-SRO (Incheon)	• Capacity building • Research • Policy Development	• S02 (China & Mongolia) • Coal power plants	• Limited scope of activities • Limited capacity
TEMM (China, Japan Korea)	• Dust & sandstorms (DSS) • Some joint research	• DSS • Ozone	• Focus on air pollution not extensive except for DSS
LTP/ NIER-Korea	• Monitoring • Modeling • Emission inventories	• SO2, NOX, PM10/2.5, O3, etc.	• Is a research project • Wider scope of research • Only 3 countries
CAA	• Knowledge provision • Promote policy & action • Facilitate communication	• Comprehensive air pollution • Air/climate	• Multistakeholder partnership, not intergovernmental
CCAC	• Knowledge sharing • Awareness raising • Capacity building	• SLCP	• Multistakeholder • Limited E.A. membership

Problems with Several Existing Frameworks

- Overall: too cautious, lacking in ambition, voluntary
- Duplication & overlap, extra cost
- Insufficient scope: Need more
  - Types of pollutants
  - Emphasis on mitigation
  - Linkage between air pollution & climate change
- Limited effectiveness
- Insufficient funding
- Should strengthen linkage to policy & implementation

(Clarification)

- This is not a systematic evaluation
- Actually, existing networks conduct important activities and made important achievements given limited resources and objectives. (As first steps.)
- However, air pollution problems are not solved, so it is time to move to the next steps.

Past Efforts to Strengthen International Cooperation in Northeast and Southeast Asia

- **Focus: strengthen each framework individually**
  - Different countries had different priorities or reservations
  - Results limited
    - Small changes
    - No significant expansion in scope
    - No focus on reduction measures

- **Possibility to merge frameworks: challenges**
  - Differences in geographic scope and focus
  - Administrative differences and complexity

➢ **Countries commonly agree on the importance of strengthening international cooperation**
➢ **But: different views on how to cooperate**

Desirable Objectives of International Cooperation

- Generally
  - Share knowledge to avoid "reinventing the wheel"
  - Improve communication between countries
  - Facilitate common understanding of air pollution & climate issues
  - Coordinate actions to enhance effectiveness & lower costs
- More specifically
  - Promote more comprehensive atmospheric management
  - Adopt multi-pollutant, multi-effect approach to consider interlinkages between pollutants (both climate & air)
  - Promote cooperation/coordination on policy measures
  - Cobenefits approach can reduce costs
  - Strengthen science-policy linkage

- **These may be general or not very controversial**
- **But different structures may be better for different objectives**
- **Issue Framing: "Transboundary" vs. "common problems"**

Options for Functions/Scope of an International Cooperation Framework

Desirable Functions

- Monitoring
- Modelling
- Assessment
- Research
- Capacity Building
- **Emissions Reduction/Mitigation**

More difficult

Scope of Pollutants - Options

- Multi-pollutant (more comprehensive)
- Climate/air
- SLCP
- Expandable

Connection to CCAC?
New framework for each new pollutant or issue?

Geographic Scope

- Global/regional/ subregional?
- NE Asia & SE Asia – together or separate?

- **One or several frameworks?**
- **Allocation of functions among frameworks**

Possible Framework Options

OPTIONS	Discussion
Global Convention on Atmosphere	• Comprehensive • Legally binding – enforcement power • Need coordination with existing initiatives • Long time to negotiate
Global standards to link to regional/sub-regional initiatives	• Voluntary/non-legally binding • Harmonization of regional initiatives • Easier to agree
Strengthening of existing regional/ sub-regional initiatives	• Limited past achievement • Does not solve overlapping/duplication
Merge existing regional/sub-regional initiatives or create a new alternative initiative (e.g. NEA or EA LRTAP).	• New mechanism or reform of existing initiative(s) • Better chance to address present challenges • May reduce overlapping/duplication • Not easy to negotiate

Additional Considerations

- Reluctance to use a legally binding agreement
  - (Especially in Northeast Asia)
- Inadequate epistemic community
  - Scientists from different countries do not have consensus
  - => For LRTAP, transnational epistemic community was important for countries to agree
- Inadequate science policy interface
  - Either domestically, or existing regional frameworks

Strengthening the Science Policy Interface for Air Pollution Issues in Asia

More scientific capacity building

More research & cooperative research

Stronger regional epistemic community

Common understanding of air pollution problems

Institutional framework to provide scientific advice to policymakers

Key issue in East Asia

Making progress (conferences, joint research), but more needed. (e.g. IUAPPA 2016)

➢ **Which of these aspects to focus on?**

Proposal for an Asian Science Panel on Air & 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)

Observations on China

- Severe air pollution not new; more severe peaks, media attention, domestic & transboundary damage clearer.
- Air pollution is now a high domestic political priority
- China is steadily strengthening its air pollution policies
  - Stronger targets, more pollutants, monitoring, public release of data
  - Integrated into Five year plans (includes economic measures to modernize environmental technology and eliminate backwards industrial structure
  - Officials' promotions linked to environment
  - Stronger EIA (can block new projects)
  - Regional management (domestic transboundary pollution), higher targets for designated regions

Challenges

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

International cooperation may focus on implementation, capacity

Recent Japanese Policy Initiatives

- Policy Dialogue at TEMM on Air Pollution
- Bilateral discussions with China
- Emphasis on Promoting Co-benefits (air pollution & climate)
  - Support existing programs like UNEP & CAA
  - Projects on information sharing, strengthening the scientific basis of policymaking, sharing best practices, support enhancing control measures
  - Co-benefit capacity building in developing countries
  - Model/pilot projects to test application of Japanese co-benefit technology
  - Joint research on co-benefit methodologies
  - Support Asian Co-benefits Partnership

Recent Development: 15th Tripartite Environment Ministers Meeting (TEMM)*

- 15th TEMM Held at Kitakyushu, Japan, May 6, 2013
- Ministers made general statements on air pollution in the Joint Communique
  - Recognized importance of controlling emissions and strengthening regional cooperation
  - Expect EANET to enhance monitoring
  - Establish a Tripartite Policy Dialogue on Air Pollution
  - Agreed to further utilize existing regional programmes
- But overall no concrete plans or direction

* Among China, Japan, South Korea

TEMM The Tripartite Environment Ministers Meeting Among China, Japan, and Korea

Conclusions

- Air pollution in E. Asia is worsening, and becoming more complex
- Limited effectiveness of existing international cooperation frameworks
- Many obstacles to strengthening existing frameworks or creating new ones
- China is making new significant domestic efforts, but effectiveness is not yet clear
- Key issue: how to engage countries with widely different priorities and capabilities in international cooperation
- Maybe best to prioritize the development of a regional scientific epistemic community
- Emphasize the co-benefit approach, multi-pollutant multi-effect approach (e.g. GAINS model) for cost effectiveness

Thank You !

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