

Air Pollution and Regional Economic Integration in East Asia: Implications and Recommendations

Mark Elder

Institute for Global Environmental Strategies

July 29, 2015

International Forum for Sustainable Asia and the Pacific (ISAP) 2015, Yokohama, Japan

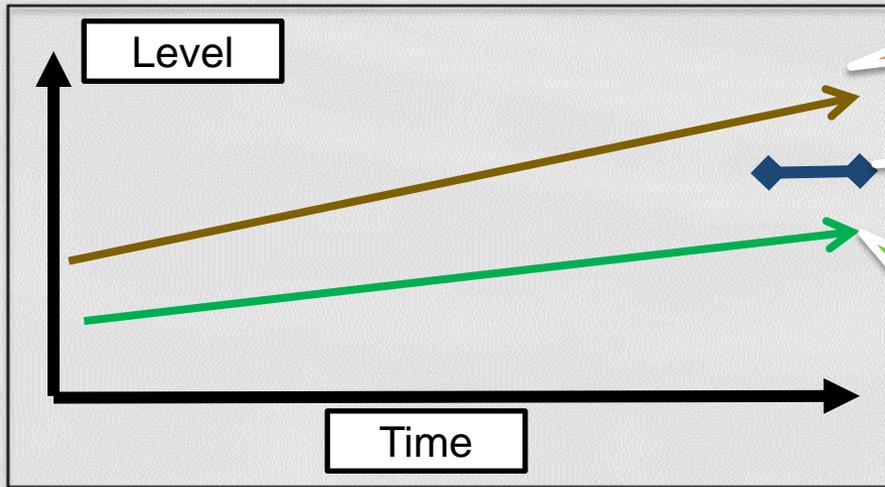


Traditional Thinking about Economic Integration and the Environment

- There is a tradeoff between environment and economy
- Worries that stronger environmental policies, standards, might raise costs, undermine trade competitiveness
- Strict environmental regulations might cause investment to go elsewhere
- Worries about a race to the bottom



Economic Integration and Air Pollution



Economic integration increases gradually over time

WHO Guideline Level

Air pollution standards increase gradually over time

- Not as much as economic integration
- Often not to the level of WHO Guidelines

ECONOMIC INTEGRATION

* Might not prevent stronger standards

* But may limit stronger standards (less than developed countries, WHO guidelines)

Air pollution itself may not improve:

- Economic growth might offset stronger standards

Race to the Top?

Higher Standards Help Exports: Case of Autos

- Japan – (1970s)
 - Japan followed stricter auto standards in the US; then US delayed
 - Japanese auto companies also wanted to delay; government refused
 - Big advantage for Japanese auto exports to the US
 - Japanese & US auto companies miscalculated their interests
- China – raised auto standards to develop export potential
- Southeast Asian countries already make advanced auto parts

High Cost of Air Pollution

- Deaths
- Health costs
- Crop damage, reduced yields
- Difficult to attract skilled workers

Need more cost-benefit analysis



Main Messages & Recommendations

- Stronger standards do not undermine competitiveness and may increase it.
- Even if you aren't persuaded –
 - China already strengthened its standards (so no reason for lower ones)
- Better for countries to raise standards jointly
 - To ease fears about competitiveness
- Co-benefit approach
 - Development co-benefits (e.g. jobs)
 - Climate co-benefits (increased cost effectiveness by addressing air and climate simultaneously)
- Expanded regional integration should be conditioned on
 - Stronger domestic air pollution standards and regulations
 - Stronger enforcement and implementation
 - Development of implementation capacity.



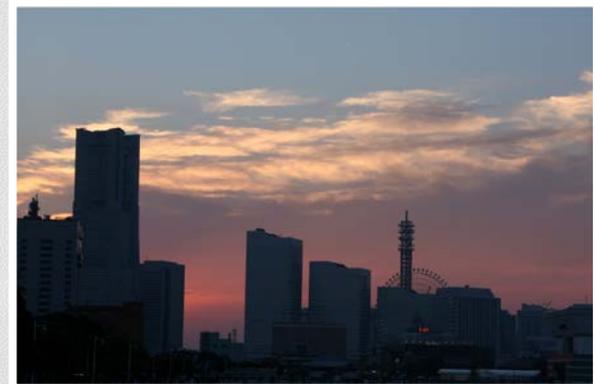
For international cooperation consider the European framework

(Convention on Long-range Transboundary Air Pollution - LRTAP)

(For reduction measures, not just standards)

- Countries have differentiated reduction targets
- Cost-optimized reduction measures calculated by modeling
- Capacity building for monitoring & reduction measures, especially for less developed countries
- LRTAP is legally binding, but could be voluntary in Asia
- Could create a new cooperation framework or build on existing frameworks

Thank You!



Mark Elder, IGES
elder@iges.or.jp
www.iges.or.jp

Acknowledgments: This research was supported by the Environment Research and Technology Development Fund (S-7-3) of the Ministry of the Environment, Japan.