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Politics and diplomacy undermine China and Korea's transboundary air pollution reduction

In northern China and the Korean Peninsula, air pollution has worsened over the past ten years, but the two countries have not cooperated efficiently to resolve the problem. China and Korea must separate environmental negotiations and diplomatic actions to address the transboundary nature of air pollution.

Credit: Smog: Soul filled with fine particles dust. All Files - FotoWeb 8.0 (springernature.com)

Fine particulate matter (PM2.5) is responsible for respiratory and cardiovascular health problems and premature deaths across countries of East Asia. In 1995, China, Korea, and Japan established a long-range transboundary air pollutants research program that brings environmental officials and researchers together to address different sources and cross-border transmission of air pollutants. In 2019, the three governments jointly released a scientific report indicating that China was responsible for 32% of fine dust pollution in Korea. Despite this finding, no binding agreement and policy commitment on cross-border air pollution has been agreed upon.

Muhui Zhang from Sungkyunkwan University in Seoul, South Korea, took a closer look at the stagnant cooperation between Korea and China and explored two questions: (1) how environmental and political factors that underpin policy commitments are interrelated, and (2) how international politics and diplomatic concerns affect the negotiations between the two countries[1]. Zhang collected qualitative data from various scientific and policy reports published by governments, non-governmental organizations, and regional environmental organizations and performed a detailed three-dimensional analysis.

First, the scientific analysis focuses on how China and Korea monitor cross-border pollution, exchange emission data and methodology. The first analysis also looks into the countries' strategies for creating standard procedures for comparing scientific findings and, most importantly, for finding consensus on the causes of pollution and cross-boundary transmission. In the second analysis, Zhang examined procedures in state-to-state environmental negotiations and the possibility of implementing agreements and commitments. The third analysis looked at the performance of environmental organizations in both countries and the extent to which they contribute to monitoring and regulating the behaviors of national governments.

This multi-layered analysis shows that air-quality standards for PM2.5 emission and methodological assumptions used in China and Korea are different and result in conflicting views on the severity of the air pollution problem. Diplomatic procedures between the two countries have contributed to forming bilateral environmental frameworks. However, a lack of scientific evidence on air pollution, shared responsibility, and politics-oriented ad-hoc approaches prevent policy commitments. A state-centered system in both China and Korea has limited the capacity building of multilateral environmental institutions.

Both countries need to separate environmental negotiations and diplomatic actions. The focus should be on politically less sensitive and complementary measures, such as technology transfer from the private sector, and support independent scientific studies by non-governmental organizations. China and Korea must overcome their differences and find a way to collaborate to reduce the air pollution burden because domestic measures offer only limited scope for progress. Air pollution is no longer a local issue but a regional and global threat.

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