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# TRANSBOUNDARY AIR POLLUTION IN NORTHEAST ASIA: TWO PATHWAYS FORWARD FOR CHINA AND SOUTH KOREA

By Yeeun Uhm\* and Creighton Barry†

Simply put, air pollution kills. Each year, more than 5.5 million people die from illnesses caused by breathing polluted air worldwide.<sup>1</sup> In 2013 alone, one in ten deaths globally were associated with air pollution.<sup>2</sup> Such alarming statistics ought to provide governments a strong incentive to combat air pollution,<sup>3</sup> but toxic air unrelentingly blankets places like New Delhi, Seoul, and Bangkok.<sup>4</sup> Fundamentally, this may be because humans take the atmosphere for granted as a place to dump industrial waste.<sup>5</sup> This article will discuss two alternative pathways to addressing transboundary air pollution between China and South Korea. One involves binding international dispute resolution based on the principles of *Trail Smelter*,<sup>6</sup> and the other promotes deeper bilateral cooperation through consensus-building, transboundary environmental impact assessment, and private standard-setting.

## I. TRANSBOUNDARY AIR POLLUTION INFORMS INTERNATIONAL LEGAL NORMS

Air pollution ignores political borders. Pollution sourced in one place can lead to illness or death in another.<sup>7</sup> Accordingly, transboundary air pollution is increasingly important in international law. Customary international law norms grew from international legal disputes over transboundary air pollution.<sup>8</sup> In *Trail Smelter*, a smelter in British Columbia, Canada emitted sulfur dioxide that crossed into the U.S. and damaged nearby Washington State in the mid-1920s.<sup>9</sup> The arbitration took thirteen years, and the Tribunal ultimately found the smelter liable for emitting transboundary air pollution.<sup>10</sup> Customary international law now imposes a duty to prevent transboundary environmental harm.<sup>11</sup>

Transboundary air pollution between China and South Korea starts with desertification in China and southeasterly “yellow dust” storms act as vectors for various kinds of pollutants, including fine particulate matter, nitrogen oxide, sulfur dioxide, aerosols, ozone, and heavy metals.<sup>12</sup> These pollutants are carried by wind towards South Korea and can cause numerous health problems, including respiratory and eye diseases.<sup>13</sup> While air pollution within China is well understood, attributing causation for this pollution becomes complicated once it reaches South Korea. Studies have estimated as much as 49% of South Korea’s air pollution can be attributed to China.<sup>14</sup> Meanwhile, the National Aeronautics and Space Administration (NASA) led a 2016 international effort which determined that only 15% of South Korea’s particulate matter is attributable to South Korean anthropogenic sources while most of the remainder comes from China.<sup>15</sup> Despite its complexity, the China-South Korea transboundary air pollution problem is not unsolvable.

## II. SCIENTIFIC COOPERATION COUPLED WITH DISPUTE RESOLUTION

Scientific cooperation with binding dispute resolution is a sound legal approach to transboundary air pollution because effective domestic legal avenues in China and South Korea are currently unavailable. Theoretically, Korean domestic law provides a remedy for Koreans who have been harmed by transboundary air pollution. Under Article 750 of the Korean Civil Code, Koreans can file tort claims against individuals or corporations for damages from air pollution if they can prove causation.<sup>16</sup> This remedial process is very similar to the approach taken by the *Trail Smelter* Tribunal.<sup>17</sup> However, unlike the *Trail Smelter* Tribunal, Korean courts do not yet have sufficient scientific data to find that a certain source of air pollution caused specific damage domestically. In 2010, the Seoul Central District Court held the plaintiffs who sued the city and several automobile manufacturers under Article 750 inadequately proved causation.<sup>18</sup> In its determination, the District Court accepted the car manufacturers’ argument that the plaintiffs failed to demonstrate that car emissions were the only cause of the plaintiffs’ asthma, without taking into account other contributing factors to pollution in Seoul, like pollution from China.<sup>19</sup> Accordingly, the District Court concluded the plaintiffs could not prove causation and were precluded from seeking damages under Article 750.<sup>20</sup> Due to the complexity of the pollution, demonstrating a causal link between any one source of pollution, domestic or international, might be impossible. Therefore, a successful air pollution tort claim under Article 750 is unlikely.

Another obstacle that plaintiffs may run into is reciprocity. Because both Korea and China require reciprocity before recognizing foreign judgments,<sup>21</sup> plaintiffs will have difficulty finding reciprocal justice for environmental claims in either country.<sup>22</sup> Reciprocity usually requires the plaintiff’s country to have previously upheld a defendant’s country’s domestic judgments.<sup>23</sup> No bilateral enforceability mechanism between China and South Korea currently exists, so establishing reciprocity is unlikely.<sup>24</sup> Even if a Korean plaintiff obtained a domestic tort judgment against a Chinese polluter, a Chinese court would need to determine if that judgment is upholdable under Chinese law.<sup>25</sup>

A viable, long-term solution might involve China and South Korea replicating the success of *Trail Smelter* and the United States’ and Canada’s bilateral enforceability mechanism

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agreement.<sup>26</sup> Korean environmental organizations could begin lobbying their government to start discussions with Beijing about negotiating a bilateral agreement with an enforcement mechanism (i.e., the Tribunal to the Convention of Ottawa). Because in both the 2010 Korean motor vehicle emissions case and *Trail Smelter* causation hinged on conclusive scientific evidence, scientific monitoring and data collection are clearly key to transboundary air pollution litigation.<sup>27</sup> Ministerial talks are necessary for international relations; however, a bilateral air quality governance mechanism supported by scientific cooperation coupled with a legally binding dispute resolution mechanism that reflects the principles of *Trail Smelter* will likely best serve both nations in the long term.<sup>28</sup>

### III. PROMOTING BILATERAL COOPERATION

While *Trail Smelter* provides a valuable legal framework to analyze the transboundary air pollution in Northeast Asia, it is very difficult to move directly into the discussion of a binding dispute resolution mechanism under existing circumstances. Many scholars think that such an international legal measure is difficult to achieve due to the current diplomatic realities between South Korea and China.<sup>29</sup> As recently as December 7, 2018, the Korean National Assembly refused to characterize the transboundary air pollution problem with China as a “dispute” and sought to pursue further inter-ministerial and scientific cooperation with Beijing.<sup>30</sup> Given today’s political climate, we should also seek other measures to address the China-Korea transboundary air pollution issue in a timely manner.

The first step to promoting bilateral cooperation is reaching a regional consensus on the causes of fine dust and the necessity to adopt a long-term integrated strategy.<sup>31</sup> To do this successfully, China and South Korea should conduct joint study regularly and continuously until a sufficient amount of scientific information is accumulated and use that information as a basis of discussions in diplomatic settings. In November 2019, South Korea, China, and Japan publicly released a first-of-its-kind joint study on air pollution.<sup>32</sup> The recent report is important because researchers in South Korea, China, and Japan acknowledged for the first time together that ultrafine dust is not a domestic concern but a regional one.<sup>33</sup> This can be a good starting point to build political consensus.

Once China and South Korea start to share a common understanding of the issue and have strengthened their diplomatic channels, the Espoo Convention<sup>34</sup> may serve as a basis for South Korea to reach an agreement with China on transboundary environmental impact assessment (EIA) procedures. If China is obligated to notify and consult with South Korea about


transboundary environmental effects of certain activities within its jurisdiction, both countries will be better equipped to respond to the increasing level of ultrafine dust. This will also create opportunities where industrial pollutants can be reduced through the application of best available technology.<sup>35</sup> Although effectively implementing a transboundary EIA is difficult in practice,<sup>36</sup> the process of discussing the details of such agreement and creating a Convention Secretariat can provide a forum for exchange of information and capacity building.<sup>37</sup>

In addition to cooperation at the state level, both governments should encourage industries to adopt more stringent environmental standards for emissions of ultrafine dust. These private and quasi-private standard-setting efforts can have lasting impacts across borders even faster than traditional legal measures.<sup>38</sup> Also, given that the level of ultrafine dust increases when the consumption of coal and other fossil fuels increases, regulations and incentive mechanisms should be implemented to support smoother transition to renewable energy.<sup>39</sup>

Transboundary air pollution from China to South Korea can be addressed gradually based on long-term cooperation between the two countries including the above-mentioned strategies for consensus-building, transboundary EIA, and private standard-setting. These strategies require not only stronger political commitments but also active participation from non-state actors who have the capacity to inspire action on better air quality among businesses, cities, subnational governments, and citizens.<sup>40</sup>

### IV. CONCLUSION

This article presents two alternative pathways to addressing transboundary air pollution between China and South Korea: international dispute resolution and promoting cooperative actions. Presently, the Korean government views this problem more as an opportunity for discussion and cooperation than a potential dispute.<sup>41</sup> However, as pollution levels continue to rise, it may need to rethink its approach.

Both pathways have shortcomings. Although international legal action seems to be a more binding and enforceable solution, such legal action largely depends on diplomatic and economic relations between countries and requires significant amounts of scientific information to prove causation. On the other hand, to produce tangible results by furthering bilateral cooperation through small steps would take a long time. Therefore, any future agreement between China and South Korea should take into consideration the unique values of each approach put forward in this feature when devising a long-term solution to their transboundary air pollution problem. 

## ENDNOTES

<sup>1</sup> THE WORLD BANK & INST. FOR HEALTH METRICS AND EVALUATION, THE COST OF AIR POLLUTION: STRENGTHENING THE ECONOMIC CASE FOR ACTION 1 (2016), <http://documents.worldbank.org/curated/en/781521473177013155/pdf/108141-REVISED-Cost-of-PollutionWebCORRECTEDfile.pdf> (explaining such illnesses include lung cancer, heart disease, stroke acute respiratory

infections, and chronic obstructive pulmonary diseases like bronchitis and emphysema).

<sup>2</sup> *Id.* at 22.