



## Journal of Global Environmental Dynamics (JGED)

Contents list available at JGED website: <https://jurnal.uns.ac.id/jged>  
ISSN: 2774-7727

# Article of International Environmental Policy: Analysis of Airborne Pollution Problems (Case Study: Trail Smelter)

Rahayu Pratiwi<sup>a\*</sup> and Raihani Saputry<sup>a</sup>

<sup>a</sup>Environmental Sciences, Faculty of Mathematics and Natural Sciences, Sebelas Maret University, Indonesia

**ABSTRACT.** Industrial development and technological advances cause various problems of pollution and environmental damage. Problems related to the environment are a global problem, both for developed and developing countries. The emergence of problems to the environment due to industrial developments such as what happened in the case of air pollution in the Trail Smelter case. The Canadian Trail Smelter case caused air pollution which was considered damaging and polluting the neighboring country, namely the United States. The Trail Smelter Plant is an iron ore smelting plant that produces iron products and produces industrial waste in the form of sulfur dioxide air pollution. Both countries raised the problem and damage caused by the Trail Smelter Plant through The International Joint Commission (IJC) which resulted in a fine decision to Canada as the owner of the Trail Smelter Plant and keep the plant operating. This decision was rejected by the United States because it was considered that the decision was not following the impact caused by the Trail Smelter Plant. The settlement which was then carried out by Canada and the United States was which the Arbitration Board resulting in a final decision, namely that there was real damage due to the Trail Smelter so that Canada was obliged to pay an additional fine and asked the Trail Smelter to reduce the impact of the pollutant released from this case, it becomes a reference and benchmark for countries experiencing problems related to traffic pollution, especially air traffic.

**Keywords:** Arbitration, Air Pollution, Environmental Laws, Trail Smelter, Tribunal

**Article History:** Received: 23 June 2021; Revised: 7 July 2021; Accepted: 7 July 2021; Available online: 31 July 2021

**How to Cite This Article:** Pratiwi, R., Saputry, R. (2021) Article of International Environmental Policy: Analysis of Airborne Pollution Problems (Case Study: Trail Smelter). Journal of Global Environmental Dynamics, 2(2), 8-10.

## 1. Introduction

The problem of pollution and environmental damage is a problem that must be immediately addressed and resolved. Along with the development and advancement of technology, environmental problems continue to develop and are of various kinds, such as water pollution, soil pollution, air pollution, and others. Problems related to the environment are a global problem, both for developed and developing countries. Environmental awareness also has an impact on human health and survival.

Air is one of the elements of life that is needed by living things, especially plants as a result of the photosynthesis of green plants that will be used by other living things. At a certain concentration level, air pollution can affect work power so that it will reduce the impact of air pollution on human health is very worrying if the right solution is not found. The most dangerous pollution occurs outdoors due to the presence of industrial pollutants. Plants have a great reaction in accepting the effect of changes or disturbances due to air pollution and environmental changes. This happens because of many influencing factors such as plant species, age, nutritional balance, temperature, humidity, and irradiation (Budiyono, 2001).

To overcome the damage to the national and international environment, the state has the power and jurisdiction of its territory to establish laws and enforce the law through its institutions. Enforcement of environmental law is an effort to

achieve compliance with regulations and requirements in general and individual legal provisions. As for neighbouring countries that have problems related to trans-environmental pollution such as airborne pollution, it can be solved by several solutions to cross-environmental problems.

The problem of air pollution from the Trail Smelter by Canada and the United States was resolved through the Joint International Commission and Arbitration Board. Arbitration is a way of resolving civil disputes outside the general court based on an arbitration agreement made in writing by the disputing parties. The JIC (Join International Commission) is an administrative institutional established under the Boundary Waters Treaty in 1907. It has no jurisdiction over air pollution issues and only has jurisdiction over disputes relating to border water issues. Then, the IJC decision which was rejected by America led to the establishment of the Court of Arbitration in 1935. The two countries agreed to take the matter to the Arbitration Board based on the convention in force in both countries which was signed in April. 15, 1935. Initially, this case occurred between farmers in areas affected by the Smelter Trail and the owners of the Smelter Trail. Later this case developed when regional and federal agencies were involved so that this dispute became an international problem. Both parties to the dispute employ a variety of experts to represent their interests, including scientists and private or public companies. The United States used the US DLN with scientists from the Department of Agriculture to investigate the impact of smelters on agriculture in the region. Whereas, Canada used the Canadian National Research Council (NRC) and was

\*Corresponding author: [rhayahyu28@gmail.com](mailto:rhayahyu28@gmail.com)

granted access to the Salt Lake Research Station to investigate smelter defences.

## 2. Materials and Methods

This study uses descriptive-qualitative analysis, which is to explain and analyze various conditions and situations that occur from various data collected such as literature studies. The purpose of this research is to describe and analyze the case of Trail Smelter and the actions taken to solve the problem. The data obtained came from the study of literature and materials.

## 3. Results and Discussion

The Trail Smelter Plant is a Canadian-owned iron ore smelter founded in 1916. The Trail Smelting Plant was operated by Canada near the Colombian river, about 10 miles from the Canada-United States border in Trail, British Columbia, in the Southwest corner of the Kootenays, known to be a mineral-rich area. The plant was founded by Consolidated Mining and Smelting Company of Canada Limited, qua a mining company Smelter Plant. Since then, Trail Smelter has been operating without interruption and has operated the plant over time to become the largest Smelter on the continent.

In the 1920s, the Trail Smelter Plant has produced waste about 5000 tons of sulfur per month, until the fumes of the smelting caused damage to surrounding forests and crops as well as across the Canada-United States border in Washington. It caused the United States to suffer losses to the wood and plants in its territory so that it complained about the impact of the Trail Smelter to Canada. The emission production increases and causes various losses to land, water, air, health, and other resident interests (Asdar, 2015). Most workers rely on income from trail smelters. It was a sign of prosperity for the people of Canada. However, on the other hand, local farmers complain about the impact of the factory's toxic fumes on garden crops. The influence received, especially in the United States, is in the form of an unfavorable environment for vegetation growth, resulting in drastic extinction of vegetation. In 1925, has two 409-foot high ore piles were processed which produced sulfur dioxide fumes reaching the United States. From 1925 to 1931, there was damage done to the state of Washington by sulfur dioxide.

The events continued to make the United States sued Canada for the damage suffered from the Trail Smelter factory. The two countries agreed to file a lawsuit in this case through the International Joint Commission as an administrative body established by the Boundary Waters Treaty in 1907 where does not have jurisdiction about air pollution and only has jurisdiction over disputes related to water border issues.

In 1931, the IJC agency ruled that the Trail Smelter Plant had been damaged and sought compensation from the Trail Smelter for \$350,000 US. However, the IJC decision is rejected in 1932 because the decision did not specify the plant to reduce sulfur dioxide emissions and the compensation provided was much lower than expected. The unsatisfactory outcome of the IJC's decision led to the formation of the Arbitration Board in 1935.

In 1935, the convention was signed in Ottawa, Ontario. Arbitration cases from Canada as perpetrators and the United States as victims of the impact of Canadian-owned factories. Both parties employ various experts to represent their interests. The United States is working with scientists to investigate the impact of smelter emissions on agriculture in

the region. Canada was granted access to investigate smelter defenses. The rejection of the decision from the IJC resulted in a diplomatic maneuver that led to the Court of Arbitration. As part of the agreement to the Court of Arbitration, the United States agreed to receive IJC's initial compensation from Canada as compensation for damages caused by the Trail Smelter Plant.

In 1936, the investigation into the Trail Smelter case began. Canada establishes a Court of Arbitration or Tribunal. The United States proves there is damage in the region. However, Canada found discrepancies and narrowed the definition of damages so that the arbitrators only added \$78,000 US for damages. The Arbitration decision succeeded in assuming state responsibility for international air pollution. There is especially important because no country can use its territory in such a way that it will cause damage by air pollution to other areas.

In 1941, the final decision of the Arbitration found Canada guilty with evidence of actual damage and given a fine of \$600,000 US to the United States, while the factory was still operating must-have equipment to reduce pollutant impacts in the future. The method of resolving the Trail Smelter case becomes a reference for other countries that have a similar incident related to air pollution.

## 4. Conclusion

The Trail Smelter case is a case of air pollution caused by a Canadian iron ore smelting company in which the emissions released from the factory caused environmental damage to the neighbouring country, namely the United States around 1916-1941. Efforts to resolve the Trail Smelter case were carried out with Arbitration Board by each country (Canada and the United States) which resulted in decisions in the form of payment of fines and modification of technology that reduced factory emissions. This can be an example for other countries that have experienced similar cases related to airborne pollution problems.

## References

- Budiyono, A. (2001) Pencemaran Udara: Dampak Pencemaran Udara pada Lingkungan. *News Dirgantara*. 2[1]: 21-27.
- Justita, F. (2018). Analisis Kasus Trail Smelter. *Fiat Justitia*. <http://aswansidraplawyer.blogspot.com/2018/05/analisis-kasus-trail-smelter.html>. Accessed on 3 December 2019.
- Manurung, D. S. T. (2014). Pengaturan Hukum Internasional Tentang Tanggungjawab Negara Dalam Pencemaran Udara Lintas Batas Studi Kasus: Kabut Asap Kebakaran Hutan di Provinsi Riau Dampaknya terhadap Malaysia-Singapura. <https://media.neliti.com/media/publications/15005-ID-pengaturan-hukum-internasionaltentang-tanggungjawab-negara-dalam-pencemaran-uda.pdf>. Accessed on 3 December 2019. Sumatera Utara: Universitas Sumatera Utara.
- Nur, T. (2016). Pengaturan Asean Agreement on Transboundary Haze Pollution (AATHP) Tahun 2002 tentang Pencemaran Udara Lintas Batas dan Implementasinya di Indonesia (Studi Kasus: Pencemaran Udara di Indonesia). *Article Program Kekhususan Hukum International*. Fakultas Hukum Universitas Bung Hatta Padang.
- Prunella, C. (2014). An International Environmental Law Case Study: The Trail Smelter Arbitration. <https://intlpollution.commons.gc.cuny.edu/an-international-environmentallaw-case-study-the-trail-smelter-arbitration/>. Accessed on 3 December 2019.
- Purwadi, A. (1991). Hukum dan Pembangunan Tinjauan tentang Tanggung Gugat Ex Pasal 1365 BW bagi Pencemar Lingkungan. Jakarta Pusat: Universitas Indonesia. 121-136.

Puspitasari, D. E., and A. Merdekawati. (2007). Pertanggungjawaban Indonesia dalam Penyelesaian Kasus Transboundary Haze Pollution Akibat Kebakaran Hutan Berdasarkan Konsep State Responsibility. *Mimbar Hukum*. 19[3]: 335-485.

Saepudin. (2010). Kasus Trail Smelter. *Welcome Saepudin Online*. <https://saepudinonline.wordpress.com/2010/11/30/kasus-trail-smelter/>. Accessed on 3 December 2019.