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South Korea's Environmental Securitization Process in Facing the Impact of China's Fine Dust

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Abstract

Research has revealed how China's economic policies influence South Korea's securitization strategy in the context of fine dust pollution between China and South Korea. The evolution of South Korea's approach to addressing this issue is highlighted through the difference in approaches between earlier and more recent studies. Policies such as the Blue Sky Project underscore the practical implications of securitization in international relations, emphasizing the importance of diplomatic cooperation in addressing environmental threats collectively. Therefore, securitization involves transforming social-political issues into security concerns, necessitating extraordinary measures to address perceived existential threats. South Korea has strategically utilized securitization to respond to the fine dust issue caused by China's negative technological impacts. By portraying the situation as a national security problem, this research will examine South Korea's implementation of complex measures, initiating diplomatic efforts and international agreements to reduce fine dust particles' environmental and public health risks. Alarming trends in air quality decline, influenced by hazardous fine dust particle flows and reinforced by media coverage, have propelled South Korea to respond effectively. The significance of this issue is amplified by its environmental and public health implications, creating an urgent need for comprehensive action. In a thorough investigation, this research seeks to explain the intricate interaction between environmental challenges arising from fine dust pollution, media narrative influence, and South Korea's strategic securitization usage.

Keywords: South Korea, Securitization, Environment, Moon Jae In, China

1. Introduction

Fine dust blowing from the deserts of Mongolia and China has been a well-known meteorological phenomenon in East Asia, especially in the spring (Husar et al., 2001). This phenomenon is known locally as "whangsa" which means "yellow sand" in Korean, and has been a part of regional meteorological history (Kwon et al., 2002). However, public attention to this fine dust has increased in recent decades due to growing scientific evidence. Choi et al. and Li et al. showed that besides natural dust, this phenomenon also carries man-made pollution from China, causing public health concerns in South Korea. Particular attention has focused on the understanding that the dust, after passing through densely industrialized areas in eastern China, is contaminated with carcinogenic substances,

mainly in the form of invisible nano-sized particles known as PM_{2.5} or fine dust (J. C. Choi et al., 2001; Kwon et al., 2002; Li et al., 2012).

Over the past two decades, the annual average concentrations of PM₁₀ and PM_{2.5} in Seoul, Korea, have undergone significant changes, providing insight into the city's air quality dynamics. While PM₁₀ has fluctuated over the years, a consistent decline has occurred since 2002, with annual average concentrations decreasing from 58 µg/m³ in 1998 to 47 µg/m³ in 2016. However, it should be noted that this still exceeds the Korean air quality standard (50 µg/m³) and the WHO recommendation (20 µg/m³) (WHO, 2021; Xavier Leflaive et al., 2021). An examination of data from the Annual Report on Air Quality in Korea (2016) revealed that Seoul faces higher air pollution challenges than many other major cities worldwide. PM₁₀ concentrations in Seoul are much higher than in some global cities, reaching 1.4 to 2.8 times, exposing significant health risks, especially for children and the elderly (Laura Bicker, 2019).

When exploring the complex challenges faced by the fine dust crisis, it becomes clear that its implications extend beyond the boundaries of public health. China's role as a significant generator of dust storms and a large contributor to global carbon emissions is a crucial focus of attention. Data from the IEA (2020) shows that in 2019, China and South Korea ranked in the top two globally in carbon dioxide emissions, accounting for about 30.03% of global emissions. China's air pollution problem has developed into a global issue with far-reaching impacts.

A comprehensive study by Lin et al. (2014) showed that increased air pollution in China significantly affects pollutant concentrations in distant regions such as the western United States. These impacts suggest that pollution from China affects the country and its neighboring countries, such as South Korea and Japan. The correlation between China's air pollution and declining air quality in cities such as Seoul and Tokyo has been documented by several researchers, including Martin Fackler (2013) and Julian Ryall & Audrey Yoo (2013). However, establishing a direct causal link between Chinese pollution, excellent dust, and adverse impacts in South Korea is a complex challenge.

The cyclical emissions dynamics between the two countries add another level of complexity to the issue. Research by Lin et al. (2014) used the GEOS-Chem model to simulate the impact of export-related emissions from China on air quality in the United States. The results confirmed that China is the world's largest contributor to air pollution, with the most significant impact on air pollution levels in South Korea. This corresponds to the airflow direction from China to South Korea, which exacerbates air pollution in the country. China's policies make it the most significant contributor to air pollution and the producer of the highest pollution levels worldwide. The resulting pollutants cause local environmental problems and directly impact temperature and regional climate change before the rains. This reveals the inevitable link between China's pollution and the ecological challenges faced by South Korea.

The study by Kim et al. (2020) highlighted the detrimental impact of air pollution on the central nervous system (CNS), suggesting that air pollution in the environment may act as a neurotoxin. Human epidemiological studies and animal studies have supported this claim, suggesting that air pollution has the potential to exert detrimental effects on the CNS, potentially contributing to CNS diseases such as cognitive decline, dementia, anxiety, depression, schizophrenia, and attention hyperactivity disorder (ADHD). Joint research by Jia and Ku (2019) highlighted the critical link between Asian dust and air pollution from China, which significantly impacts mortality rates in South Korea, particularly related to respiratory and cardiovascular diseases.

The data showed that an increase in China's average Air Quality Index (AQI) could result in a significant increase in respiratory and cardiovascular mortality rates in South Korea, especially in vulnerable groups such as children under five years old and the elderly (Jia and Ku 2019). South Korea's National Institute of Environmental Research (NIER) states that fine dust comes not only from overseas but also from within the country, with the primary sources of fine dust emissions within South Korea being boilers, automobiles, and various industrial facilities. Analyses show that most of the formation of fine dust in South Korea can be attributed to domestic factors, although contributions from foreign sources are also significant (Kim et al., 2020).

The statement by Kim et al. highlighted the persistent improvement in air quality on the Korean Peninsula, with fine dust levels increasing remarkably between 2012 and 2013. The addition of PM_{2.5} particles in 2015 is of particular concern, with seven major cities, including Seoul, reporting persistent atmospheric particles smaller than 2.5 micrometers (PM_{2.5}). This increase was attributed to the increased use of coal in China, which leads to increased air pollution during westerly winds and extends the period of concern from winter to autumn and spring (Kim et al. 2020). The economic impact of fine dust pollution in South Korea is significant, with estimates suggesting that the country incurred costs totaling around 10-12 trillion won in 2018, equivalent to 8.8-10 billion USD (Kim et al., 2020). This calculation includes the monetary value of different air pollutants such as fine particulate matter, volatile organic compounds, and sulfur oxides. However, such estimates are conservative and do not include other contributing factors, such as long-term health issues that may require government subsidies in the future (Jia & Ku, 2019).

The cost, estimated at 10 trillion won, may be much higher if health-related expenditures, decreased consumption, and industrial activity due to fine dust pollution are considered. In perspective, 10 trillion won equals about 0.35% of South Korea's GDP and 10% of the country's economic growth rate (Dongwook Kim et al., 2022). In addition to the economic impact, the media also plays a vital role in influencing policy support and public perceptions regarding fine dust. Choi (2021) found that media reports on fine dust can influence public opinion and tend to blame individuals or government entities for the problem. The study also identified a correlation between walking time, fine dust levels, and the volume of media reports on fine dust, suggesting that negative perceptions created by media reports may influence people's behavior more than actual increases in dust concentrations (Kim et al., 2020).

In the context of South Korea's response to the fine dust crisis, securitization becomes a relevant lens to analyze the political dynamics involved. Securitization refers to the process by which political issues are elevated to security concerns that require extraordinary measures. It allows states to use unusual measures to address what they perceive to be an existential threat to national security, albeit not necessarily an objective threat to their survival. The securitization process involves using rhetoric and discourse to portray political issues as existential threats to the state, thus requiring extraordinary measures to address them (Rens van Munster, 2012).

Research on state securitization of environmental impacts has generated substantial academic output over the years, exploring various aspects of this phenomenon. Some studies have highlighted the need for more in-depth analysis, particularly in understanding how securitization affects policy and resource allocation (Peters & Mayhew, 2016). Focusing on the human dimension of securitization has also been emphasized, highlighting the importance of perceptions and frameworks in this process (Setiawan & Hapsari, 2018).

Research has uncovered how China's economic policies affect South Korea's securitization strategy in the context of fine dust pollution between China and South Korea. The difference in approach between earlier and more recent studies shows the evolution of South Korea's approach to dealing with this issue (Jia & Ku, 2019; Salam et al., 2023). Case studies such as the Blue Sky Project highlight the practical implications of securitization in international relations, emphasizing the importance of diplomatic cooperation in addressing shared environmental threats (Nabila, 2020).

Therefore, securitization involves transforming socio-political issues into security concerns, which require extraordinary measures to address perceived existential threats. South Korea has strategically utilized securitization to respond to the fine dust problem caused by negative technological impacts from China. Describing the situation as a national security issue, this study will examine how South Korea has implemented complex measures and initiated diplomatic efforts and international agreements to mitigate fine dust particles' environmental and public health risks.

The alarming trend in deteriorating air quality, influenced by the influx of harmful fine dust particles and sustained by media coverage, has prompted South Korea to respond effectively. The issue's significance is magnified by its environmental and public health implications, creating an urgent need for comprehensive action. In a thorough

investigation, this research seeks to explain the complex interplay between the ecological challenges of fine dust pollution, the influence of media narratives, and South Korea's strategic use of securitization.

2. Method

This qualitative research explores South Korea's securitization process against fine dust from China during the Moon Jae-in administration. Using observations and interviews as the primary data sources, official documents from South Korean and Chinese government websites are the primary references. The research approach focuses on qualitative methodology, emphasizing intuitive and systematic techniques to enhance understanding. Descriptive research was chosen to describe the securitization process without specific intervention. Data sources involved words and actions, with an emphasis on qualitative aspects. Secondary data was collected through literature review and documentation, covering various sources such as government agencies and news portals. The analysis involved an iterative process of data reduction, presentation, and conclusion. Triangulation ensures data validity by comparing patterns and explanations from analyses with other sources. The research was conducted without the researcher's physical presence at the research site, relying on written documents published by South Korean official bodies and other official institutions. Secondary data was obtained from the UPNVJ library, UI, and the National Library.

3. Results

3.1 South Korea's Domestic Policy on Fine Dust Management

Korea has set ambient air quality standards for seven major pollutants: SO₂, NO₂, CO, fine particulates (PM₁₀ and PM_{2.5}), ozone, lead, and benzene. Industry-specific emission standards are set for 29 substances. Stricter emission standards can be applied for industrial complexes and other areas experiencing severe air pollution, referred to as 'air preservation special action areas.' The Korean Constitution, in Article 35, states that all people have the right to live in a healthy and comfortable environment. The country's environmental regulatory framework comprises laws, enforcement decrees, and ministerial and derivative regulations. Many environmental laws have been amended since 2006, especially those governing air, water, land, and environmental impact assessment (EIA) pollution, as well as several new laws adopted.

In 2017, the Korean government strengthened regulations on volatile organic compounds (VOCs) emissions for cities with a population of half a million or more. They plan to expand the regulatory targets gradually depending on annual petrol sales. In addition, installing petrol vapor recovery systems will become mandatory in cities with a population of half a million or more, with financial support for installation costs. Other measures include banning solid fuels in areas that exceed environmental standards, mandatory use of clean fuels in some areas, and strengthening air quality monitoring networks. The Moon Jae-In government prioritized the fight against fine dust in 2017.

The Fine Dust Management Comprehensive Plan (known as the "26 September action") is much more ambitious than its predecessor to reduce fine particulate emissions and the number of days of poor air quality. Emergency measures are implemented when fine dust concentrations are high, including driving restrictions and adjustments to business operating hours. These measures will be extended to the private sector and further outside the Seoul Metropolitan Area, with stricter implementation and possibly considering alternative methods to reduce air pollution.

South Korea's Fine Dust Management Comprehensive Plan has five strategic directions to control fine dust pollution. Firstly, the plan aims to control fine dust in highly polluted areas intensively. The control program Total emissions, previously applied only in the Seoul Metropolitan Area, will be extended to almost the entire country, including areas such as Chung-Cheong, Dongman, and Gwang-yang, by applying new rates to emissions of secondary pollutants such as nitrogen oxides (NO_x). Secondly, a holistic approach to fine dust reduction will be adopted. The new plan will see PM_{2.5} precursors as one of the targets to control and seek synergies with other national energy policies, addressing the interrelationships between air pollutants in management. Third,

international cooperation and joint action will be promoted. Practical solutions for regional joint actions to reduce fine dust emissions will be developed and implemented. Fourth, the plan will focus on managing health risks and protecting people from fine dust. Measures will be taken to strengthen the management of indoor and outdoor activities during high-concentration episodes and provide public protection services for vulnerable groups. Fifth, science-based response capacity will be enhanced. Fragmented research will be systematically integrated to improve the accuracy of emission inventories, and technologies such as satellite imagery or aircraft will be applied for 3-D fine dust analysis.

The measures to be implemented within the framework of the Comprehensive Plan can be divided into two groups: short-term measures to be implemented immediately in the first half of 2018 and medium- to long-term measures to be completed by 2022, the last year of the Moon Jae-in administration. Emergency reduction and health protection measures will be prioritized in the short term. In the medium to long term, more fundamental issues will be addressed through intensive control of domestic emitters in four key sectors, in line with efforts for international cooperation.

The core strategy for the power generation sector includes reducing the share of coal-fired power generation by re-evaluating the potential for new coal-fired power plants to be converted to green power sources. Measures for this sector aim to reduce emissions by 25% by 2022, equivalent to 12,511 tonnes of emissions, which accounts for 3.9% of total national emissions. For the industrial sector, measures include increasing business facilities subject to emission limit regulations and strengthening emission monitoring. The targeted emission reduction percentage is 32% by 2022, equivalent to 52,791 tonnes of emissions, which accounts for 16.3% of Korea's total emissions. Actions for the transport sector are divided into on-road and off-road transport sectors. Measures for the on-road transport sector focus on retrofitting old diesel vehicles and increasing the use of environmentally friendly vehicles. The goal is to reduce emissions by 32% by 2022, equivalent to 28,984 tonnes of emissions, which accounts for 9% of Korea's total emissions.

The government is also strengthening the management of emissions from ships and ports by tightening standards for sulfur content in ships' fuel. Measures to reduce fine dust from the ambient focus on strengthening the management of emission sources and setting stricter standards for the content of VOCs in paints. The ambient emission reduction target is 15% by 2022, equivalent to 8,987 tonnes of emissions, which accounts for 2.8% of Korea's total emissions. The government also plans to address dust re-lift by installing flower beds on roads, changing road design standards, and improving the management of VOCs at refueling stations. These measures also include the promotion of solid waste recycling and constructing recycling stations in rural areas. In addition, the government will implement proper shredding and disposal projects for agricultural crop residues currently disposed of by illegal burning. This includes the construction of 'Neighbourhood Sorting Stations' to recycle and store solid waste and an increase in the number of recycling stations in rural areas each year. Active measures will also be promoted to eradicate illegal burning.

3.2 South Korea's International Cooperation in Fine Dust Pollution Management

In 2017, China was highlighted as a major source of fine dust particles in South Korea, with up to 70% of fine dust in the country originating from China (KH 디지털 2, 2017). Fine dust particles are picked up from the deserts of Mongolia and China through prevailing winds during certain seasons (Laura Bicker, 2019). Geographically, the Korean peninsula is under the influence of air pollution from three Chinese provinces adjacent to Korea. The concentration of fine dust or particulate matter (PM) with PM10 in the Chinese capital is 46.2 times the World Health Organisation (WHO) threshold. Meanwhile, in Seoul, PM10 levels are at twice the government threshold to meet the inferior air quality for health.

Under the Moon Jae-in administration, media reports linking China to fine dust air pollutants quadrupled between 2015 and 2017. South Korea adopts a holistic approach by actively participating in international forums, such as the Asia-Europe Meeting (ASEM) and the United Nations Environment Conference (UNEP). The country designed a joint strategy within this framework to strengthen emission monitoring and support global initiatives to achieve fine dust reduction goals. Within the framework of international cooperation, South Korea has shared

its best practices in reducing emissions and addressing air pollution. Knowledge exchange programs between countries have been essential for developing innovative and proven practical solutions to the delicate dust problem (Yuna Ku et al., 2023).

In this regard, South Korea has engaged in various international collaborations with other state actors to address the fine dust problem as a security issue. Cooperation with neighbouring countries and participation in global environmental initiatives indicate the various actors' efforts to secure fine dust internationally. The forms of cooperation carried out by South Korea include:

3.2.1 Bilateral Cooperation with China

During the Moon Jae-in administration, South Korea established bilateral cooperation with China to reduce fine dust pollution (EPIC, 2023; Lu et al., 2023; M. Zhang, 2023). President Moon Jae-in's visit to China in 2017 accelerated bilateral atmospheric cooperation by initiating the "Blue Sky Plan" (J. Zhang et al., 2019). South Korea has implemented various emergency measures for fine dust reduction, such as restricting vehicle operations in high-density cities since 2018. However, practical regional cooperation, including China, is needed to reduce air pollution levels significantly. Future efforts should be made to establish a joint action cooperation system (Lu et al., 2023; M. Zhang, 2023).

The Blue Sky Plan is an environmental initiative implemented in China to address air pollution, including fine dust pollution. It involves various policies and projects to improve air quality and reduce particle pollution. The plan encourages technological reforms in environmental enterprises and industries, supported by significant Blue Sky Science and Technology Project investments. The Blue Sky Plan is a comprehensive strategy that includes various measures to combat air pollution and improve overall air quality. The policy actors behind China's Blue Sky Plan include various government agencies, research institutions, and international partners (EPIC, 2023; Lu et al., 2023; J. Zhang et al., 2019; M. Zhang, 2023).

Key actors include the Chinese Government, the Ministry of Ecology and Environment (MEE), the Ministry of Industry and Information Technology (MIIT), research institutes or think tanks such as the Energy Foundation China (EFC), and the South Korean government's key cooperation partner. In practice, periodic and performance evaluations will monitor China's Blue Sky Plan for effectiveness. The plan will be closely monitored to ensure that the intended goals and objectives are achieved. The Chinese government has established regular PM2.5 monitoring stations to track air quality and pollution levels. A cost-benefit analysis is also conducted to evaluate the effectiveness of the Blue Sky Plan. This evaluation is used to make necessary adjustments to the plan to ensure its continued effectiveness in reducing air pollution and improving air quality in China.

China's Blue Sky Plan is part of a series of measures the Chinese government took to reduce air pollution and promote sustainable development. These measures align with broader environmental policies and balance economic growth and ecological sustainability. In this regard, China has taken aggressive action in critical sectors such as industry, energy, and transport to reduce emissions of air pollutants and greenhouse gases and reduce the number of days with high air pollution. The Blue Sky Plan is supported by efforts to improve the legal framework, increase funding, and strengthen environmental monitoring.

In addition, there is significant investment from the Blue Sky Science and Technology Project, which aims to reform technology in environmental enterprises and industries. These measures align with China's goal of transitioning to a more sustainable, low-carbon economy. In addition to efforts to reduce pollution and promote sustainable development, China is also adopting a mediation approach in international conflicts. By mediating in such conflicts, China hopes to be accepted by most countries in the world, which in turn provides excellent opportunities and benefits to its economy. This approach helps China secure its position in the international arena and strengthen its economy (Juned, 2023; Rifaldi & Juned, 2023).

3.2.1 South Korea's Participation in Other International Cooperation Frameworks on Pollution and Fine Dust Management

In December 2022, South Korea, China, and Japan held a virtual trilateral meeting to discuss joint efforts to reduce air pollution from fine dust and move towards carbon neutrality. The 23rd Tripartite Environment Ministers Meeting was attended by South Korean Minister of Environment Han Wha-jin, Chinese Minister of Ecology and Environment Huang Runqiu, and Japanese Minister of State for the Environment Miki Yamada (TCS, 2022). The meeting resulted in signing a joint agreement highlighting their desire to work together on environmental issues. In interstate relations, competition over resources and territory, such as fishing grounds and the Northern Sea Route, is potentially exacerbated by climate change pressures.

The northward shift of fishing grounds around Japan has increased friction between states in an already tense regional environment. Militarisation in the Arctic region is explicitly mentioned as a climate change-related security threat, and increased maritime traffic in Northeast Asia can potentially complicate relations between states. Given the region's increasing climate change-related risks, there is an urgent need for a climate security agenda in East Asia. The DCAF report highlights the importance of governance and security sector reform in implementing the climate security agenda. It emphasizes the military's role in responding to climate change-related risks effectively and accountable. The report also identifies concrete steps that East Asian actors can take to address climate security risks, drawing on experiences elsewhere and proposing recommendations for implementing an SSG-based approach to climate security.

In addition to East Asian regional initiatives, South Korea is also engaged in international cooperation to address air pollution. For example, South Korea has participated in the UNFCCC and committed to reducing greenhouse gas emissions. For example, South Korea attended the 26th meeting of the UN Conference of the Parties on Climate Change (COP26) in Glasgow in November 2021, where leaders of Small Island Developing States (SIDS) highlighted the real threat of climate change to their survival and livelihoods (Brief, 2023). South Korea, as the fifth-largest economy in the Asia-Pacific, has also participated in the Asia-Pacific Economic Cooperation (APEC) and has committed with other member countries to promote sustainable development and reduce air pollution through its Sustainable Energy Action Plan and Sustainable Transportation Action Plan frameworks (S. Zhang et al., 2021).

In addition, South Korea and the United States (US) have collaborated to improve air quality and reduce exposure to toxic chemicals. The US Environmental Protection Agency (EPA) (EPA 2023) and the Korean Ministry of Environment have worked together to improve air and water quality and reduce exposure to toxic chemicals. The Korea-United States Air Quality Study (KORUS-AQ) is an international multi-organisation mission to observe air quality in the Korean peninsula and surrounding waters (NASA, 2023).

Finally, South Korea has partnered with the United Nations Environment Programme (UNEP) under the Moon Jae-in administration (2017-2022) to combat air pollution and improve air quality. This partnership includes the Seoul, Incheon, and Gyeonggi provinces, which are jointly developing a series of measures to combat air pollution. In this regard, the South Korean government and UNEP are committed to increasing efforts for better air quality, including through global action platforms such as the International Day of Clean Air for Blue Skies, free from Air Pollution (UNEP, 2023).

4. Discussion

South Korea has implemented various policies and measures to reduce fine dust, yielding tangible results. The country introduced the Comprehensive Plan for Mitigating Fine Dust Particles, which includes a new air pollution warning system, a commitment to environmental cooperation between China and South Korea, and various domestic measures to reduce air pollutants (Song, 2023).

In addition, the South Korean government has enacted the Special Act on Fine Dust Reduction and Management and the Fine Dust Management Master Plan to facilitate effective and long-term solutions through active communication among key stakeholders, including the public or the general public (Tae Yong Jung, 2019). In addition, South Korea has set ambitious targets to improve air quality, with the newly released master plan aiming

to lower fine dust concentrations by more than 35 percent compared to 2018 levels by 2030. These efforts demonstrate South Korea's commitment to addressing the fine dust problem and its dedication to achieving significant air quality improvements.

The South Korean public has responded to media framing and narratives of the fine dust issue, particularly as an environmental safety issue, with great concern and demands for action. Research has shown that the public in South Korea considers fine dust pollution one of the country's most critical problems, with 97% of Koreans believing it to be a severe threat (Ellie Jimin Kim, 2020). Media portrayals of fine dust as an environmental safety issue have contributed to public anger and fear, prompting calls for immediate and effective action to address the problem. The relationship between actual fine dust concentrations and media exposure has influenced changes in outdoor activity behavior in South Korea, suggesting that media coverage impacts public behavior and awareness. The public response to the media framing of fine dust as an environmental safety issue is also evident in the legislative action taken by the South Korean National Assembly. In March 2019, the National Assembly declared the fine dust problem a 'social disaster' (Kim et al. 2020). This declaration reflects the growing public recognition of the severity of the situation and the need for decisive government action. In addition, public sentiments and concerns over fine dust pollution have been reinforced by the media's portrayal of the issue as a social disaster and a significant risk to public health. Media coverage of the crisis has increased public pressure on the government to take effective action to address the problem. The public demand for action is evident in the criticism of President Moon Jae-in's failure to address the crisis, indicating that the public holds the government responsible for addressing the problem (Kim et al., 2020).

South Korea has implemented a series of policies and measures to address the severe impact of fine dust. By introducing the Comprehensive Plan for Mitigating Fine Dust Particles and through specific regulations and master plans, the South Korean government demonstrated a strong commitment to air quality improvement and environmental protection. These measures also include international cooperation, especially with China, to address transboundary pollution. The importance of the fine dust issue is reflected in government policies, public responses, and media portrayals. The South Korean public responded to the issue with great concern, influenced by media exposure that framed fine dust as an environmental safety threat and public health risk. This created significant public pressure on the government to act.

Legislative actions, such as the declaration of fine dust as a 'social disaster' by South Korea's National Assembly, reflect the growing awareness in society of the seriousness of the issue. Media scrutiny of the government's response, including criticism of failures in handling the fine dust crisis, emphasizes the government's responsibility to take adequate measures. In addition, research shows that media exposure affects people's awareness and behavior, especially in outdoor activities. This suggests that the media sector has a crucial role in environmental securitization, where environmental issues such as fine dust are seen as security concerns that require immediate and effective responses.

South Korea has played an active role in forums such as ASEM, UNEP, and trilateral meetings with China and Japan in international cooperation. These international collaborations highlight the importance of cross-border cooperation in addressing complex and transnational environmental issues. Overall, South Korea's efforts in dealing with the impacts of fine dust reflect a blend of progressive domestic policies, active community responses, and strong international cooperation. This suggests that the process of environmental securitization has become increasingly important in a global context, where environmental issues such as fine dust are not only seen as public health concerns but also as security threats that require cross-sector and cross-national responses.

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