*Environmental Engineering and Management Journal*

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# HOW GREEN FINANCE CAN ALLEVIATE AIR POLLUTION—— EVIDENCE FROM CHINA'S PROVINCIAL-LEVEL PM2.5

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## Abstract

Green finance encompasses both environmental and financial attributes and plays a crucial role in fostering sustainable economic growth by strengthening energy conservation, emission reduction, and environmental pollution mitigation. This study investigates the cause-and-effect connection between green finance policies and levels of haze pollution by developing a comprehensive indicator system that consists of five dimensions: green credit, green securities, green insurance, green investment, and carbon finance. This study revealed that green finance has a substantial impact on reducing haze pollution in all regions of China. The examination of the mechanism demonstrates that green finance can effectively mitigate haze pollution by promoting the utilization of clean energy. The analysis of regional heterogeneity reveals that the impact of green finance on reducing haze pollution varies across different regions, mostly due to variations in geographical characteristics and levels of industrial development. Enhancing the successful integration of green finance and environmental pollution control is crucial and has extensive implications for advancing the development of ecological civilization.

*Key words:* air pollution, green finance, $PM_{2.5}$

*Received: August, 2024; Revised final: August, 2025; Accepted: September, 2025*

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