



Does Vertical Environmental Governance Reduce Water Pollution at Borders? Evidence From a Pilot Experiment in Shaanxi, China

Abstract

This paper explores the ongoing debate between environmental centralization and decentralization, focusing on trans-boundary water pollution.

Utilizing the Vertical Environmental Governance (VEG) pilot program in Shaanxi, China, we develop a theoretical model that demonstrates how shifting environmental authority can mitigate trans-boundary pollution. By leveraging comprehensive firm-level data and employing a Difference-in-Discontinuity Design, we provide robust empirical evidence of VEG's causal impact. We identify two mechanisms, with the reconciliation of environmental policies leading to a 95% reduction in water pollution at county borders and the enhancement of environmental stringency resulting in a 60% decrease at provincial borders. While VEG's rigid command-and-control approach effectively influenced firms' location strategies and reduced water pollution at its source, it also incurred significant economic costs. Our social welfare analysis indicates that enhanced environmental stringency is more cost-effective than reconciled policies, suggesting that further efficiency gains could be achieved through more flexible market-based regulations.

Presenter

Dr. Huanxiu Guo is an Associate Professor of International College and Executive Director of "Belt and Road" National Audit Research Center, Nanjing Audit University, Director of Green Economy and Finance Research Center, and External Expert for Zhongyan Green Finance Research Institute (Nanjing). He received his Ph.D. in Development Economics from CNRS-CERDI in France, and has previously served as a post-doctoral researcher at Nanjing University and University of Sherbrooke, Canada.

His research focuses on the sustainable development in China, covering different aspects of Environment, Agriculture, Transport and City. His works have been published in top-tier academic journals, such as Journal of Public Economics, Journal of Comparative Economics, Journal of Development Studies, Transportation Research Part A, and China Economic Review. He is leading an NSFC General Program, and has won the first prize of excellent papers in the 2nd National Youth Energy and Environment Policy and Management Conference and the first prize of excellent papers in the 15th Academic Conference of Jiangsu Philosophy and Social Science Circles.

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Time

13:30-14:30 (China Standard)

Location

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