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RESEARCH INTERESTS

Environmental policy and management; risk regulation and governance

Research areas: regulation and governance (risk regulation and governance, environmental regulation and governance); attitudes and behaviors (risk perception and communication, environmental attitudes and behaviors)

EDUCATION

Carnegie Mellon University

M.S., Ph.D., Department of Engineering and Public Policy, 2007

Peking University

M.S., Center for Environmental Sciences, 2003

Dalian University of Technology

B.S. (dual), School of Chemical Engineering, 2000 (Chemical Engineering, English)

PROFESSIONAL EXPERIENCE

Peking University (2009-present)

Associate professor (with tenure), Department of Environmental Management, College of Environmental Sciences and Engineering (2019-present)

Associate professor, Department of Environmental Management, College of Environmental Sciences and Engineering (2010-2019)

Assistant professor, Department of Environmental Management, College of Environmental Sciences and Engineering (2009-2010)

Pacific Northwest National Laboratory (2008-2009)

Research scientist (level II), Energy and Environment Division

PUBLICATIONS – Papers

Regulation and Governance (Risk regulation and governance; environmental regulation and governance)

1. H. Li#, **J. Xu***, J. Wiener (2021). Comparing environmental risk regulations in China and the United States. *Risk Analysis* (forthcoming)
2. H. Yu, **J. Xu***, L. Xue (2021). Engaging experts in global biotech governance: what influences their judgement on value-laden challenges? *Science and Public Policy* (online) https://doi.org/10.1093/scipol/scab022
3. Z. Dai, E. Burns, P. Irvine, D. Tingley, **J. Xu**, D. Keith (2021). Elicitation of US and Chinese expert judgments show consistent views on solar geoengineering. *Humanities and Social Sciences Communications*, 8, Article number: 18.
4. S. Fan#, L. Xue and **J. Xu*** (2018). What drives the policy attention to climate change in China: an empirical analysis through the lens of *People's Daily*. *Sustainability*, 10(9), 2977.
5. L. Chen#, **J. Xu**, Y. Zhou (2017). Regulating the environmental behavior of manufacturing SMEs: interfirm alliance as a facilitator. *Journal of Cleaner Production*, 165C: 393-404.
6. C.S.F. Chi, I. Ruuska, **J. Xu*** (2016). Environmental impact assessment of infrastructure projects: a governance perspective. *Journal of Environmental Planning and Management,* 59(3), 393-413.
7. **J. Xu**, L. Xue (2016). On resilience-based risk governance. In *Resilience In And For Risk Governance (RIARG): An IRGC Annotated Resource Guide*. International Risk Governance Council. (Invited paper) https://www.irgc.org/wp-content/uploads/2016/04/Xu-Xue-On-Resilience-based-Risk-Governance.pdf
8. M. Florin, **J. Xu** (2014). Risk governance: an overview of drivers and success factors. In *the Global Assessment Report on Disaster Risk Reduction 2015*. The United Nations Office for Disaster Risk Reduction. (Invited paper) http://www.preventionweb.net/english/hyogo/gar/2015/en/home/documents.html
9. D. Huang#, **J. Xu**, S. Zhang (2012). Valuing the health risks of particulate air pollution in the Pearl River Delta, China, *Environmental Science & Policy*, 15(1), 38-47.
10. X. Xie, S. Zhang, **J. Xu**, D. Wu, T. Zhu (2012). Cost-effective control of ground-level ozone pollution in and around Beijing. *Chinese Journal of Population Resources and Environment*, 10(2): 101-109.
11. F. Pan#, **J. Xu***, L. Xue (2020). Voluntary environmental program: research progress and future prospect. China population, resources and environment. 30(1):74-82. (In Chinese)

    潘翻番#，**徐建华***，薛澜（2020）. 自愿型环境规制：研究进展及未来展望. 中国人口·资源与环境. 30(1)：74-82.
12. L. Xue, **J. Xu** (2020). On improving the capacity for risk communication in Emergency Management. *China Emergency Management*, 2020(4): 14-16. (In Chinese)

    薛澜，**徐建华**（2020）. 提升应急管理风险沟通能力. 中国应急管理. 2020(4): 14-16.
13. **J. Xu***, S. Fan, L. Xu (2020). The Economic Cost and Ancillary Impacts of Environmental Risk Regulation — The Dimensions Needing Attention. *Chinese Journal of Environmental Management*, 12(2): 56-61. (In Chinese)

徐建华*，范世炜，薛澜（2020）. 环境风险规制的经济成本及次生影响 — 决策中需要重视的向度. 中国环境管理. 12(2)：56-61.

14. **J. Xu***, L. Xu (2020). Risk Communication and Science Communication. *Studies on Science Popularization*. 2020(2): 5-12. (In Chinese)

    徐建华*，薛澜（2020）. 风险沟通与科学传播. 科普研究. 2020(2): 5-12.

15. X. Zhang#, **J. Xu*** (2019). Demystifying the Shortage of Natural Gas in Implementing the "Replacing Coal with Natural Gas" Policy – from the Perspective of Cascading Failures. *Chinese Public Administration*, 2019(6): 117-121. (In Chinese)

    张晓东#，**徐建华***（2019）. 气代煤政策执行中的气荒成因解析：政府和市场相继失灵的视角. 中国行政管理. 2019(6)：117-121.

16. R. Wang#, **J. Xu*** (2018). Evaluation of the procedure and outcomes of deliberative environmental public participation. *China Public Administration Re*view, 28: 47-60. (In Chinese)

    汪若宇#，**徐建华***（2018）. 环境治理中的协商式公众参与——基于文献案例的研究. 公共管理评论, 28: 47-60.

17. **J. Xu** (2018). On ancillary risks in environmental governance. *China National Conditions and Strength*, 3, 12-14. (In Chinese)

    徐建华（2018）. 环境治理中的次生风险问题研究. 中国国情国力，3: 12-14.

18. B. Fang#, **J. Xu*** (2013). Introducing risk-risk tradeoff analysis into policy making process. *China Public Administration Review*. 9-25. (In Chinese)

    方波#，**徐建华***（2013）. 风险政策制定体系中的风险权衡分析研究. 公共管理评论，9-25.

19. **J. Xu** (2010). Environmental risks – the sword of Damocles hanging over the Chinese economy. *China and World Affairs*, V.20, No. 3/4, 109-113. (In Chinese)

    徐建华（2010）. 环境风险 — 高悬于中国经济之上的达摩克利斯之剑. 中国与世界观察，总第 20 期，2010 年第 3/4 合期.

Attitudes and Behaviors (Risk perception and communication, Environmental Attitudes and Behaviors)

20. Tan, G. Wong-Parodi, **J. Xu** (2020). Not Under My Backyard? Psychological distance, local acceptance, and shale gas development in China. *Energy Research & Social Science*. Volume 61, March 2020, 101336
21. M. Tu, B. Zhang, **J. Xu**, F. Lu (2020). Mass media, information and demand for environmental quality: evidence from "Under the Dome". *Journal of Development Economics*. Volume 143, March 2020, 102402
22. C. Qin#, **J. Xu***, G. Wong-Parodi, L. Xue (2020). Change in public concern and behavioral intention toward air pollution *Under the Dome*. *Risk Analysis*, 40(10): 1983-2001.
23. H. Tan, and **J. Xu*** (2019). Differentiated effects of risk perception and causal attribution on public behavioral responses to air pollution: a segmentation analysis. *Journal of Environmental Psychology*. Volume 65, October 2019, 101335
24. H. Tan, **J. Xu**, G. Wong-Parodi (2019). The politics of Asian fracking: public risk perceptions towards shale gas development in China. *Energy Research & Social Science*. 54: 46-55.
25. B. Sergi, I. Azevedo, T. Xia#, A. Davis, and **J. Xu*** (2019). Support for emissions reductions based on immediate and long-term pollution exposure in China. *Ecological Economics*, 158:26-33.

26. **J. Xu***, C.S.F. Chi, K. Zhu# (2017). Concern or apathy: the attitude of the public toward urban air pollution. *Journal of Risk Research*, 20:4, 482-498.
27. **J. Xu** and Z. Peng (2015). People at risk of influenza pandemics: the evolution of perception and behavior. *PLoS ONE,* 10(12): e0144868.
28. **J. Xu***, Y. Zhang, B. Liu, L. Xue (2014). Risk perception in natural disaster management. *2014 International Conference UNESCO Chair in Technologies for Development: What Is Essential?* 4-6 June 2014, EPFL, Lausanne, Switzerland.
29. C.S.F. Chi, **J. Xu**, L. Xue (2014). Public participation in environmental impact assessment for public projects: a case of nonparticipation. *Journal of Environmental Planning and Management*, 57(9), 1422–1440.
30. **J. Xu***, H. K. Florig, M. DeKay (2011). Evaluating an analytic-deliberative risk-ranking process in a Chinese context, *Journal of Risk Research*, 14(7), 899-918.
31. X. Liu#, **J. Xu*** (2020). Public willingness to pay for cleaner power sources. *Resources Science*, 42(12): 2328-2340. (In Chinese)

    刘晓#，**徐建华***（2020）. 公众对电力来源清洁化的支付意愿. 资源科学, 42(12): 2328-2340.
32. R. Wang#, C. Qin#, **J. Xu*** (2018). Factors affecting driving and car-purchasing intentions of the public in face of air pollution. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 55(4):738-746. (In Chinese)

    汪若宇#，秦川申#，**徐建华***（2019）. 大气污染背景下公众减少驾车以及购车意愿的影响因素研究. 北京大学学报. 55(4)：738-746.
33. T. Xia#, **J. Xu***. (2018). Public's protective response to urban air pollution. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 54(4), 8017-806. (In Chinese)

    夏田#，**徐建华***（2018）. 公众对城市大气污染的健康防护行为研究. 北京大学学报，54(4)：801-806.
34. **J. Xu**, L. Xue, M. Shou# (2016). Risk perceptions in environmental social governance: a review of fifty years of studies. *China Public Administration Review*. 22, 85-103. (In Chinese)

    徐建华，薛澜，寿明佳#（2016）. 环境社会治理中的公众风险认知：半个世纪研究的回顾与未来展望. 公共管理评论，22：85-103.
35. T. Wu#, **J. Xu*** (2016). Comparative studies on climate change reporting with content analysis. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 52(2), 327-335. (In Chinese)

    吴彤#，**徐建华***（2016）. 基于内容分析法的气候变化报道国际比较. 北京大学学报，52(2)：327-335.
36. K. Zhu#, **J. Xu*** (2014). Review of risk perception on urban air pollution. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 50(5), 969-978. (In Chinese)

    朱可珺#，**徐建华***（2014）. 城市大气污染的风险认知研究评述与展望. 北京大学学报, 50(5)：969-978.

Decision Analysis (Decision Making under Uncertainty, Environmental Decision Making)

37. **J. Xu**, X. Wang, S. Zhang (2013). Risk-based air pollutants management at regional levels, *Environmental Science & Policy*, 25, 167-175.
38. S. Blumsack and **J. Xu** (2011). Spatial variation of emissions impacts due to renewable energy siting decisions in the Western U.S. under high-renewable penetration scenarios, *Energy Policy*, 39(11), 6962-6971.

39. **J. Xu**, P. Fischbeck, M. Small, J. VanBriesen, and E. Casman (2010). Closure to "Identifying sets of key nodes for placing sensors in dynamic water distribution networks". *Journal of Water Resources Planning and Management*, 136(2), 295-296.
40. **J. Xu***, M. Small, P. Fischbeck, J. VanBriesen (2010). Integrating location models with Bayesian Analysis to inform decision making. *Journal of Water Resources Planning and Management*, 136(2), 209-216.
41. **J. Xu***, M. Johnson, P. Fischbeck, M. Small, J. VanBriesen (2010). Robust placement of sensors in dynamic water distribution systems. *European Journal of Operational Research*, 202, 707-716.
42. P. C. Wong, L. R. Leung, N. Lu, M. J. Scott, P. Mackey, H. Foote, J. Correia Jr., Z. T. Taylor, **J. Xu**, S. D. Unwin, A. Sanfilippo (2009). Designing a collaborative visual analytics tool for social and technological change prediction. *IEEE Computer Graphics and Applications*, 29(5), 58-68.
43. **J. Xu***, J. VanBriesen, M. Small, and P. Fischbeck (2009). Decision making under information constraints. *World Environmental and Water Resources Congress 2009,* v342, 414-422 (EI)
44. **J. Xu***, and D. Chassin (2009). An agent-based simulation of the Smartgrid. *SIMS50- Simulation and Modeling of Energy Technology*, Fredericia, Denmark
45. **J. Xu***, P. Fischbeck, M. Small, J. VanBriesen, and E. Casman (2008). Identifying sets of key nodes in dynamic water distribution networks. *Journal of Water Resources Planning and Management*, 134(4), 378-385.
46. A. Ostfeld, et al. (2008). The Battle of the Water Sensor Networks (BWSN): A design challenge for engineers and algorithms. *Journal of Water Resources Planning and Management*, 134 (6), 556-568. (Joint publication by all participants of the BWSN challenge)
47. A. Krause, J. Leskovec, S. Isovitsch, **J. Xu**, C. Guestrin, J. VanBriesen, M. Small, P. Fischbeck (2006). Optimizing sensor placement in water distribution systems using submodular function maximization. *Proceedings of the 8th Annual Water Distribution Systems Analysis Symposium*, 247, 109.
48. Y. Zhao#, **J. Xu*** (2018). Analysis of accident risk in China's petrochemical industry. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 54(4), 857-864. (In Chinese)

    赵岩#，**徐建华***（2018）. 我国石油化工行业事故风险分析. 北京大学学报，54(4)：857-864.
49. S. Wang, **J. Xu**, L. Wang (2015). Comments on enhancing the role of science and technology in China's air quality management. *Global Science, Technology and Economy Outlook*. 30(1), 60-66. (In Chinese)

    王顺兵，**徐建华**，王磊（2015）. 提高我国区域大气污染联防联控科技支撑能力的建议. 全球科技经济信息瞭望，30(1): 60-66.

Publications on Other Topics in the Environmental Field

50. Y. Wang, X. Chen, A. G. L. Borthwick, T. Li, H. Liu, S. Yang, C. Zheng, **J. Xu**, J. Ni (2020). Sustainability of Global Golden Inland Waterways, *Nature Communication*, (2020)11:1553.
51. Z. Zhou, Y. Kang, H. Li#, S. Cao, **J. Xu**, X. Duan, G. Yang, K. Shao (2020). Estimating inorganic arsenic exposure from rice intake in Chinese urban population. *Environmental Pollution*. Volume 263, Part A, August 2020, 114397
52. L. Li#, **J. Xu***, J. Hu, J. Han (2014). Reducing nitrous oxide emissions to mitigate climate change and protect the ozone layer. *Environmental Science & Technology*, 48(9), 5290–5297.
53. Q. Wang, L. Zhao, X. Fang, **J. Xu**, Y. Li, Y. Shi, J. Hu (2013). Gridded usage inventories of chlordane in China, *Frontiers of Environmental Science and Engineering*, 7(1): 10–18. (Only contributed to the writing)

54. X. Fang, J. Wu, **J. Xu**, D. Huang, Y. Shi, D. Wan, H. Wu, M. Shao, J. Hu (2012). Ambient mixing ratios of chlorofluorocarbons, hydrochlorofluorocarbons and hydrofluorocarbons in 46 Chinese cities. *Atmospheric Environment*, 54: 387-392. (Only contributed to the writing)
55. D. Wu, S. Zhang, **J. Xu**, T. Zhu (2011). The CO2 reduction effects and climate benefit of Beijing 2008 Summer Olympics Green Practice. *Energy Procedia*, 5(1): 280-296.
56. Wan, D.[#], **Xu, J.**, Zhang, J., Tong, X., Hu, J. (2009). Historical and projected emissions of major halocarbons in China. *Atmospheric Environment*, 43, 5822-5829.
57. **J. Xu**, J. Hu, and J. Zhang (2003). ODSs emission and their contribution to greenhouse effect in China. *China Environmental Science*, 23(4), 363-366. (In Chinese)

    徐建华，胡建信，张剑波（2003）. 中国 ODS 的排放及其对温室效应的贡献. 中国环境科学，23(4)：363-366.

PUBLICATIONS – Books and Book Chapters

58. W. Li, **J. Xu**, Y. Lu (2018). A vision for Reform: Roadmap and Trends for China's Conservation of Natural Resources. China Environmental Science Press. (In Chinese)

    李文军，**徐建华**，芦玉（2018）.《自然保护领域管理体制改革方向和路径研究》（中国国家公园体制建设研究丛书）. 中国环境出版集团.
59. **J. Xu**, L. Xue (2018). Translated *Risk vs. Risk: Tradeoffs in Protecting Health and the Environment* (by Graham J D, Wiener J B) into Chinese, published by Tsinghua University Press. (Book translation)

    徐建华，薛澜（2018）.《环境与健康领域的风险权衡》. 清华大学出版社.
60. H. Li[#], **J. Xu*** (2017). Risk transfer in air quality management. In *Blue Book of Environmental Management: Annual Report on Development of Environmental Management in China (2017)* (Edited by J. Li). Social Sciences Academic Press (China). (Book Chapter, In Chinese)

    李焕宏[#]，**徐建华***（2017）. 大气污染治理中的风险转移问题.《环境管理蓝皮书–中国环境管理发展报告（2017）》（李金惠 主编），社会科学文献出版社.（章节）
61. Y. Zhou, **J. Xu**, G. Xu, X. Zhang[#] (2017). Chapter 4. Barriers and Reflections Regarding the Implementation of the Green Industrial Policy. In *Green Development in China in the post Paris Agreement Era* (Edited by X. Qian, J. Zhou, J. Wu). Tsinghua University Press. (Book Chapter, In Chinese)

    周源，**徐建华**，许冠楠，张晓东[#](2017). 第四章：绿色产业政策执行的困局与思考.《巴黎协定后中国绿色发展的若干问题思考》（钱小军、周剑、吴金希主编）. 清华大学出版社.