

# Joanne Linnerooth-Bayer

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## Education

University of Maryland

### Ph.D.

- Economics

Carnegie-Mellon University

### Bachelor of Science

- Engineering and Industrial Management

## Professional Experience

**Research Scientist**, International Institute for Applied Systems Analysis Laxenburg, Austria: 1976-present: Leader of the IIASA Program on Risk and Vulnerability.

**Lecturer**, Vienna Technical University, Interdisciplinäres Projekt für das Aufbaustudium der Betriebs-, Rechts- und Wirtschaftswissenschaften: 1992-95.

**Visiting Scholar**, Resources for the Future, Institute for Risk Management, Washington, D.C., 1987.

**Scholar**, Institute for Advanced Studies, Vienna, Austria, 1971 -1972.

**Summer Intern**, International Monetary Fund, Washington D.C. 1971.

**Research Assistant**, The President's Commission on the All-Voluntary Armed Force, Washington D.C., 1969.

## Professional Memberships

Associate Editor of **Journal of Risk Research**, International Thomson Publishing.

Member of the Board of Editors of **Risk Abstracts**, University of Waterloo Press.

Associate Editor of **Risk Analysis**, Plenum Press.

Honorary Professor of Beijing Normal University, College of Resources, Science and Technology.

Member of Science Committee of the Chinese Academy of Disaster Reduction and Emergency Management.

## Selected Publications

- Linnerooth-Bayer, J. "The Economics of Nuclear Plant Safety Regulation." in *Transactions of the American Nuclear Society*, 21:387-388 (1975).
- Linnerooth-Bayer, J. "Methods for Evaluating Mortality Risk." in *Futures*, 8:293-304 (1976).
- Linnerooth-Bayer, J. "Entscheidungstechniken in der Risikobewertung." in *Grosstechnische Energienutzung und Menschlicher Lebensraum*. K. Strandt und H. Porias, Eds. Herausgeber: Technische Universität Wien und International Institute for Applied Systems Analysis, Laxenburg (1977).
- Linnerooth-Bayer, J. "The Value of Human Life: A Review of the Models." In *Economic Inquiry*, 17:52-74 (1980).
- Linnerooth-Bayer, J., J. Vaupel, H.C. Kunreuther, and M. Stoto. "An Abuser's Guide to Risk Assessment." in *Proceedings of the Low-Probability/ High-Consequence Risk Analysis Workshop*, Arlington, Va., June 15-17. Special Volume, Plenum Press (1982).
- Linnerooth-Bayer, J. "Murdering Statistical Lives." in *The Value of Life and Safety*, Jones-Lee, ed. Amsterdam: North Holland (1982).
- Linnerooth-Bayer, J., H.C. Kunreuther and J. Lathrop. "A Descriptive Model of Choice for Siting Facilities." in *Behavioral Science*, 27:33-38 (1982).
- Kunreuther, H. and J. Linnerooth-Bayer. *Risk Analysis and Decision Processes: The Siting of Liquefied Energy Gas Facilities in Four Countries*, Berlin: Springer Verlag. (1983). (also in German)
- Linnerooth-Bayer, J. and H.C. Kunreuther. "Low Probability Accidents." in *Risk Analysis*, 4, 6:143-151 (1984).
- Linnerooth-Bayer, J., H.C. Kunreuther and J. Vaupel. "A Decision Process Perspective on Risk and Policy Analysis." in *Management Science*, 30:475-485 (1984).
- Linnerooth-Bayer, J. "The Political Processing of Uncertainty." in *Acta Psychologica*, 56:219-231 (1984).
- Linnerooth-Bayer, J. "Institutional Considerations for Environmental Policy Making." in *Conceptual Trends and Implications for Risk Research*, C. Miller, P. Kleindorfer, and R. Munn, eds., IIASA, Laxenburg, Austria, (1986).
- Linnerooth-Bayer, J. and M. Dowling. "The Listing and Classifying of Hazardous Wastes." in *Risk Management and Hazardous Waste: Implementation and the Dialectics of Credibility*, B. Wynne, Ed. Berlin: Springer Verlag (1987).

## Selected Publications

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- Linnerooth-Bayer, J. and G. Davis. "Government Responsibility for Risk: The Bavarian and Hessian Hazardous Waste Disposal Systems." in *Risk Management and Hazardous Waste: Implementation and the Dialectics of Credibility*, B. Wynne, Ed. Berlin: Springer Verlag (1987).
- Linnerooth-Bayer, J. "Negotiating Environmental Issues: A Role for the Analyst." in *Effective Decision Support*, J. Hawgood and P. Humphries, Eds. Gower Technical Press, Ltd., Hants, Eng. (1987).
- Linnerooth-Bayer, J. and G. Davis. "Government Ownership of Risk: Guaranteeing a Technical Infrastructure." in *America's Future in Toxic Wastes: Lessons from Europe*, Forum Books, New York (1988).
- Linnerooth-Bayer, J. "The Danube River Basin: Negotiating Settlements to Transboundary Environmental Issues." in *Natural Resources Journal*, 30: 629-660 (1990).
- Linnerooth-Bayer, J. and B. Wahlstroem. "Applications of Probabilistic Risk Assessments: The Selection of Appropriate Tools." in *Risk Analysis*, 11:239-250 (1991).
- Linnerooth-Bayer, J. "Current Danube River Events and Issues." in *Transboundary Resources Report 7:7*, International Transboundary Resources Center, Albuquerque (1993).
- Linnerooth-Bayer, J. "The Danube River Basin: International Cooperation for Sustainable Development" in *Transboundary Resources Report 8:6*, International Transboundary Resources Center, Albuquerque (1993).
- Linnerooth-Bayer, J. "Political Culture and the "Sozialverträglichkeit" of Biotechnology" in *Austrian Journal of Sociology*, 1: 46-68 (1995).
- Linnerooth-Bayer, J. "The Varresbecker Bach Participatory Process: An Evaluation." in *Fairness and Competence in Citizen Participation. Evaluating Models for Environmental Discourse*, Ortwin Renn, Thomas Webler, Peter Wiedemann, Eds. Kluwer Academic Publishers, pp. 203-221 (1995).
- Linnerooth-Bayer, J. "Fairness in Dealing with Transboundary Environmental Risks." in *Environmental Aid Programmes to Eastern Europe: Area Studies and Theoretical Applications*, Ragnar Loefstedt and Gunnar Sjoestedt, Eds. Avebury Studies, Aldershot, Hampshire, UK (1996).
- Linnerooth-Bayer, J., H. Kunreuther and K. Fitzgerald. "Siting Hazardous Facilities: Lessons From Europe and America." in *Energy Environment and the Economy: Asian Perspectives*, P.R. Kleindorfer, H. Kunreuther, and D.S. Hong, Eds. Edward Elgar: Brookfield, 145-167 (1996).

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Linnerooth-Bayer, J. "Hazardous Waste Facility Siting: Fair Procedures and Outcomes." in *Waste Management and the Environment*, April (1996).

Linnerooth-Bayer, J. and S. Murcott. "The Danube River Basin: International Cooperation on Sustainable Development." in *Natural Resources Journal - International River Basins*, Edition Summer, Part 2, 36 (3):631-657 (1996).

Linnerooth-Bayer, J. "Does Society Mismanage Risk?" in *Wise Choices, Decisions, Games, and Negotiations*, R.J. Zeckhauser, R.L. Keeney and J.K. Sebenius, Eds. Harvard Business School Press, Cambridge, pp. 133-151 (1996).

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Linnerooth-Bayer, J. "Globale Risiken der Weltgesellschaft." in *Risikobereitschaft und Risikovermeidung*, Wendy Altherr, Felix Hanselmann, Jane Muncke and Senta Niederegger, Eds. ETH Zurich, (1997).

Linnerooth-Bayer, J. and A. Amendola. "Towards a Global Environmental Risk Management Framework" in Proceedings from the Symposium on Global Environmental Risk Research. Tokyo, March 24, (1998).

Linnerooth-Bayer, J. "Climate Change and Multiple Views of Fairness." in *Fair Weather? Equity Concerns in Climate Change*, Ferenc L. Toth Eds. Earthscan Publications Ltd., London, 44-65 (1999).

Linnerooth-Bayer, J. and A. Vari. A "Transboundary Environmental Controversy on the Danube: The Gabčíkovo Dam Project." in *Transboundary Risk Management in Europe*, J. Linnerooth-Bayer, R. Löfstedt, G. Sjöstedt, Eds. Earthscan Publications Ltd., London (2001).

Ekenberg, L., M. Boman, and J. Linnerooth-Bayer "General Risk Constraints." in *Journal of Risk Research* vol. 4, issue no. 1, pp 31-47 (2001).

Linnerooth-Bayer, J., R.E. Loefstedt, and G. Sjøstedt, Eds. *Transboundary Risk Management*. London, UK: Earthscan Publications (2001).

Linnerooth-Bayer, J. Introduction. in *Transboundary Risk Management in Europe*. J. Linnerooth-Bayer, R. Löfstedt, G. Sjöstedt, Eds. Earthscan Publications Ltd., London (2001).

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- Vari, A., J. Linnerooth-Bayer, and Z. Ferencz. "Public Views About Mitigating and Sharing Flood Risks in Hungary." in *Journal of the Hungarian Hydrological Society*, 82, no. 1, pp 47-54 (2002).
- Freeman, P., L. Martin, J. Linnerooth-Bayer, R. Mechler, G. Pflug, and N.K. Warner-Merl. "Disaster Risk Management: National Systems for the Comprehensive Management of Disaster Risk and Financial Strategies." in *Inter-American Development Bank Regional Policy Dialogue*, Washington, DC: Inter-American Development Bank (2003).
- Kunreuther, H.C., and J. Linnerooth-Bayer. "The Financial Management of Catastrophic Risks in Emerging-Economy Countries." in *Risk Analysis*, vol. 23, issue. 3, pp 627-39 (2003).
- Linnerooth-Bayer, J., and A. Amendola, Eds. *Special Issue on Flood Risks in Europe*. Vol. 23, *Risk Analysis* (2003).
- Linnerooth-Bayer, J., and A. Amendola. "Introduction to Special Issue on Flood Risks in Europe." in *Risk Analysis*, vol. 23, issue. 3, pp. 537-44 (2003).
- Vari, A., J. Linnerooth-Bayer, and Z. Ferencz. "Stakeholder Views on Flood Risk Management in Hungary's Upper Tisza Basin." in *Risk Analysis*, vol. 23, issue. 3 (2003).
- Linnerooth-Bayer, J., M. J. Mace, and R. Verheyen. *Insurance-Related Actions and Risk Assessment in the Context of the UNFCCC, Background Paper for UNFCCC Workshop on Insurance-Related Actions and Risk Assessment in the Framework of the UNFCCC*. Bonn, Germany (2003).
- Linnerooth-Bayer, J., and A. Vari. "A Model-Based Stakeholder Approach for Designing a Disaster Insurance Pool." in *The Role of Local Governments in Reducing the Risk of Disasters*, K. Demeter, N.E. Erkan and A. Guner, Eds. Washington, DC: The World Bank, pp 159-85 (2004).
- Linnerooth-Bayer, J., and R. Mechler. "Financing Disaster Risks in Developing and Emerging-Economy Countries." in *Catastrophic Risks and Insurance*, OECD Publishing (2004).
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- Linnerooth-Bayer, J., A. Vari, and R. Mechler. "Designing a Disaster Insurance Pool: Participatory and Expert Approaches in Hungary and Turkey." in *Policy Issues in Insurance*, vol. 8, pp. 267-90 (2005).

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- Linnerooth-Bayer, J.. "Fair Strategies for Siting Hazardous Waste Facilities." in *Managing Conflict in Facility Siting: An International Comparison*, S. H. Lesbirel and D. Shaw, Eds. Edward Elgar, UK (2005).
- Mechler, R., J. Linnerooth-Bayer, and D. Peppiatt. "Disaster Insurance for the Poor? A Review of Microinsurance for Natural Disaster Risks in Developing Countries." ProVention Consortium, IIASA (2006).
- Mechler, R., S. Hochrainer, and J. Linnerooth-Bayer. "Public Sector Financial Vulnerability to Disasters." in *Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies*, J. Birkmann, Ed. UNU Press (2006).
- Linnerooth-Bayer, J., A. Vari, and M. Thompson. "Floods and Fairness in Hungary." in *Clumsy Solutions for a Complex World: Governance, Politics and Plural Perceptions*, M. Verweij and M. Thompson, Eds. Palgrave Macmillan (2006).
- Linnerooth-Bayer, J. and A. Vari. "Extreme Weather and Burden Sharing in Hungary." in *Fairness in Adaptation to Climate Change*, W. N. Adger, S. Huq, M. J. Mace and J. Paavola, Eds. Cambridge, Mass., MIT Press (2006).
- Cardenas, V., S. Hochrainer, R. Mechler, G. Pflug, and J. Linnerooth-Bayer. "Public Sector Financial Risk Management: The Case of Mexico." in *Environmental Hazards, Special issue on Financial Vulnerability* Linnerooth-Bayer, J., and A. Amendola, Eds. (forthcoming).
- Linnerooth-Bayer, J., and R. Mechler. "Disaster Safety Nets for Developing Countries: Beyond Public-Private Partnerships." in *Environmental Hazards, Environmental Hazards, Special issue on Financial Vulnerability*, Linnerooth-Bayer, J., and A. Amendola, Eds. (forthcoming).
- Mechler, R. S. Hochrainer, J. Linnerooth-Bayer, and G. Pflug. "Public Sector Financial Vulnerability to Disasters: The IIASA CATSIM Model." in *Measuring Vulnerability to Natural Hazards*, J. Birkman, Ed. Tokyo, United Nations University Press (2006).
- Linnerooth-Bayer and R. Mechler. Insurance for assisting adaptation to climate change in developing countries, *Climate Policy* 6: 621-26, 2006.
- Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (Ed) (2007) Special issue on disaster risk management, *Environmental Hazards* 7(1).

## **Selected Publications**

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Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (2007) "Disaster risk management: Pro-active financing to reduce vulnerability." In: Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (Ed.), Special issue on Disaster Risk Management, *Environmental Hazards* 7(1):1-6.

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Cardenas, V., Hochrainer, S., Mechler, R., Pflug, G., Linnerooth-Bayer, J. (2007) "Sovereign financial disaster risk management: the case of Mexico." In: Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (Ed.), Special issue on disaster risk management, *Environmental Hazards* 7(1): 40-53.

Linnerooth-Bayer, J., Mechler, R. (2007) "Disaster safety nets for developing countries: Extending public-private partnerships." In: Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (Ed.), Special issue on Disaster Risk Management, *Environmental Hazards* 7(1): 54-61.

Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (2008). "Towards integrated disaster risk management: case studies and trends from Asia." *Natural Hazards* 44(2): 163-168.

Amendola, A., Linnerooth-Bayer, J., Okada, N., Shi, P. (Eds) (2008). Special issue on integrated disaster risk management in Asia, *Natural Hazards* 44(2).

Linnerooth-Bayer, J., M. J. Mace, and R. Mechler. "Insurance and Adaptation: Opportunities and Obstacles for the Climate Change Negotiations." In *Strategic Facilitation of the Climate Talks*, G. Sjostedt, F. Cede and G.O. Faure (Eds), London, United Kingdom: Earthscan Publishing (forthcoming)

## **Awards received**

Distinguished Scientist Award, European Society for Risk Analysis  
Distinguished Scientist Award, International Society for Risk Analysis