

# FOREWORD

## Special Issue on Trade and the Environment

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The impact of international trade on the environment has been a contentious issue since the early 1990s. The debates over the North American Free Trade Agreement (NAFTA) and Uruguay Round of trade negotiations, which led to the creation of the World Trade Organization (WTO), stimulated a great deal of economic research on the ways in which international trade might be environmentally harmful or environmentally beneficial, along with case studies of many industries and sectors.

The last fifteen years have seen major developments in both the theoretical and applied economic literature on trade and the environment. Such issues are also of increasing policy relevance. U.S. Executive Order 13141 and the U.S. Trade Act of 2002 require environmental assessments of trade agreements during the negotiation process. In the European Union, sustainability impact assessments of trade agreements are required as part of trade negotiations.

This special issue of the *Agricultural and Resource Economics Review* contains papers from a workshop on international trade and the environment that was held in Halifax, Nova Scotia, in June 2004, following the joint annual meetings of the Northeastern Agricultural and Resource Economics Association and the Canadian Agricultural Economics Society. The objective of the workshop was to stimulate research and discussion to improve our understanding of the complex interrelationships between international trade, natural resource use, and the environment, particularly as they relate to agriculture, forestry, and fisheries.

The paper by Brian Copeland in this issue reviews recent work on the implications of endogenous policy responses for the impacts of trade on the environment. As Copeland demonstrates, the effects of trade on the environment can be quite different in the case where the environmental policy regime is assumed fixed and in the case where it adjusts in response to changing economic and environmental conditions.

Four papers in this issue explore interrelationships between agricultural trade and the environment. The paper by Hung-Hao Chang, Richard Boisvert, and David Blandford identifies environmental policies that can lead to socially optimal levels of both groundwater recharge (a positive externality) and methane gas (a negative externality) generated from paddy rice production in Taiwan, and examines how optimal policies were affected by rice policy changes required as part of Taiwan's entry into the WTO in 2003. The paper by Caroline Saunders and Anita Wreford analyzes the impacts of agricultural trade liberalization in the European Union and in all Organization for Economic Cooperation and Development (OECD) countries on greenhouse gas emissions from the dairy sector, with and without greenhouse gas mitigation policies. The paper by Robert Johansson, Joseph Cooper, and Utpal Vasavada analyzes how complete global agricultural trade liberalization would affect environmental quality at the regional level in the United States, both with and without environmental non-degradation policies. The paper by Lori Lynch, Scott Malcolm, and David Zilberman examines whether an agricultural pollution haven could develop in Mexico following the phaseout of methyl bromide in the United States.

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The paper by Richard Horan and Frank Lupi explores international trade and invasive species. They develop an innovative model to evaluate the cost-effectiveness of various second-best subsidies for the control of invasive species, with an application to the Great Lakes.

The paper by Jared Creason, Michael Fisher, Svetlana Semenova, and Susan Stone analyzes the effects of trade liberalization in the United States at the county level, adding significant geographic detail missing from studies done at the level of an entire country. The paper by James

Turner, Joseph Buongiorno, and Shushuai Zhu uses a global forest products model to analyze the potential effects of the proposed Free Trade Area of the Americas (FTAA) on forest resources in FTAA countries, allowing the demand for forest conservation policies in each country to change in response to changes in per capita income induced by freer trade.

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