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# The Law and Economics of Development and Environment: An Introduction to the Symposium

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## SYMPOSIUM

### THE LAW AND ECONOMICS OF DEVELOPMENT AND ENVIRONMENT: AN INTRODUCTION TO THE SYMPOSIUM

DANIEL H. COLE\*

Once upon a time, environmentalists blamed economic development and growth for the world's environmental problems. Industrialists, economists, and political leaders, meanwhile, complained that overly expensive environmental protection measures obstructed economic growth and development. In the last thirty years, however, it has become increasingly clear that economic development and environmental protection are not mutually exclusive goals; to the contrary, they are to a large extent mutually interdependent. This mutual interdependence has become obvious in many developing countries of the world, which struggle under the combined weight of economic stagnation and severe environmental problems, such as lack of potable water. Indeed, poverty is almost certainly the single most important environmental risk factor. Even where combined economic and environmental problems are less severe, the abilities of countries to either develop their economies or protect their environments are subject to institutional (including legal) and technological constraints.

Several of the most pressing issues in the world today, from global climate change and sustainable development to biotechnological innovation and trade liberalization, entail special implications for less developed countries (LDCs) and their natural environments. Genetically modified organisms, for example, hold out the promise of improving food supplies in LDCs, but also create significant new environmental risks. Meanwhile, most scientists have become convinced that the earth's climate is in the process of changing, in part because of anthropogenic emissions of carbon into the atmosphere; and they expect LDCs to bear the brunt of the impacts from climate change. Yet, policy makers seem more interested in arguing about LDC participation in global institutions to reduce greenhouse gas emissions, rather than figuring out how LDCs are going to cope, and how the developed world might help them cope, with the effects of climate change.

These and other issues relating to environment and development are inherently interesting and important; they include several "hot topics" among academics and policy makers. However, much of the existing analyses of these problems are single-disciplinary, focusing exclusively on legal regimes, economic institutions, or political structures, as if combined and multifaceted

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issues of development and environment could be comprehended and resolved without heterogeneous interdisciplinary approaches and methodologies.

For these reasons, in January 2005 the Indiana Law Review sponsored a conference on the law and economics of development and environment, which brought together diverse scholars from various disciplines to share their research into combined developmental and environmental issues. We were fortunate to secure the participation of five truly outstanding scholars from the fields of law, economics, and political science. Their contributions, the final versions of which are presented in this symposium issue of the Indiana Law Review, enhance substantially our understanding of the combined legal, economic, political, and environmental problems developing countries face, and point the way towards possible solutions. What follows is a brief introduction to the papers in order of publication.

First, the eminent economist Thomas Schelling, Professor Emeritus of Economics at Harvard University and the School of Public Affairs at the University of Maryland, brings his unique intellectual creativity to bear on the problem of global climate change, particularly as it relates to economic development in LDCs. While most economists have been debating various policies for regulating greenhouse gas emissions,<sup>1</sup> Professor Schelling has been more concerned with the *costs* (or effects) of global climate change, which scientists expect will fall mainly on those countries—the LDCs—that can least afford them. He suggests that, instead of forcing LDCs to participate in regulatory regimes to limit emissions, the developed countries of the world ought to be doing more to help the LDCs develop socially, institutionally, and economically, so that they will be better able to cope with the effects of climate change as those effects materialize.

Second, the prominent political scientist Elinor Ostrom, the Arthur F. Bentley Professor of Political Science and Co-Director of the Workshop on Political Theory and Policy Analysis at Indiana University, Bloomington, and her co-author Tanya Hayes of the Center for the Study of Institutions, Population, and Environmental Change at Indiana University, address a distinct but related issue facing LDCs: deforestation. They present a comparative institutional analysis, based on empirical evidence, which challenges the presumption that

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1. See, e.g., Joseph E. Aldy, Scott Barrett & Robert N. Stavins, *Thirteen Plus One: A Comparison of Global Climate Policy Architectures*, 3 CLIMATE POL'Y 373 (2003) (recommending a global greenhouse gas emissions trading system); Daniel H. Cole & Peter Z. Grossman, *Toward a Total-Cost Approach to Environmental Instrument Choice*, in AN INTRODUCTION TO THE LAW AND ECONOMICS OF ENVIRONMENTAL POLICY: ISSUES IN INSTITUTIONAL DESIGN 225 (Timothy M. Swanson ed., 2002) (suggesting that technology-based standards might be as efficient as taxes or tradeable emissions permits if emissions monitoring proves costly, which is likely to be the case, especially for LDCs); William D. Nordhaus, *After Kyoto: Alternative Measures to Control Global Warming*, Paper prepared for a Joint Session of the American Economic Association and the Association of Environmental and Resource Economists (Jan. 4, 2001) (recommending a global carbon tax for greenhouse gas emissions), available at [http://www.econ.yale.edu/~nordhaus/homepage/PostKyoto\\_v4.pdf](http://www.econ.yale.edu/~nordhaus/homepage/PostKyoto_v4.pdf).

public ownership and management of forest resources is always the best, let alone the only, way effectively to conserve those resources. Professor Ostrom and Ms. Hayes expose as a myth the notion that resource conservation requires that resource use decisions must be taken out of the hands of local people and delegated to governments. In fact, resource conservation requires legal and institutional linkages between state actors and local resource users/protectors.

Third, Timo Goeschl, Professor of Environmental Economics at the University of Heidelberg, and his co-authors Rupert Gatti (University of Cambridge), Ben Groom (University College London), and Tim Swanson (University College London), demonstrate that international legal regimes designed to conserve scarce biological resources may be counter-productive, if they create inefficient incentives for government actors. The authors find that the institutional framework governing the international management of biological information, under the United Nation's Convention on Biological Diversity (CBD)<sup>2</sup> and the World Trade Organization's agreement on Trade-Related Intellectual Property Rights (TRIPS),<sup>3</sup> has not slowed the destruction of genetic resources in LDCs located within the world's equatorial regions, which are home to the majority of the world's biological information. They explain how this institutional failure may be due to an inappropriate incentive structure that induces source countries for bio-information to use (or threaten) resource degradation as a strategy to obtain additional compensation from countries that import biological information in order to develop valuable new biotechnologies.

Fourth, Ruth Greenspan Bell, who is an island of legal scholarship in a sea of economists at the non-partisan "think tank" Resources for the Future (and a former Senior Attorney at the Environmental Protection Agency and Senior Advisor at the U.S. State Department), brings her expertise to bear on LDC environmental policies. Specifically, she asks, which regulatory instruments should LDCs use to protect their environments as their economies develop? In recent years—particularly since the great success of the acid rain emissions trading program in the United States<sup>4</sup>—economists and policy makers around the world, including international development banks, have been pushing for countries, including LDCs, to completely replace expensive command-and-control regulations with more market-friendly approaches, such as effluent taxes and tradeable permits.<sup>5</sup> Ms. Greenspan Bell cautions us about institutional and

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2. United Nations Conference on Environment and Development, Convention on Biological Diversity, Jan. 5, 1992, 31 I.L.M. 814 (1992).

3. General Agreement on Tariffs and Trade—Multilateral Trade Negotiations (The Uruguay Round): Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, Dec. 15, 1993, 33 I.L.M. 81 (1994).

4. See, e.g., DANIEL H. COLE, POLLUTION AND PROPERTY: COMPARING OWNERSHIP INSTITUTIONS FOR ENVIRONMENTAL PROTECTION 51-57 (2002).

5. See, e.g., ENTERPRISE FOR THE ENV'T, THE ENVIRONMENTAL PROTECTION SYSTEM IN TRANSITION: TOWARD A MORE DESIRABLE FUTURE (1997); THINKING ECOLOGICALLY: THE NEXT GENERATION OF ENVIRONMENTAL POLICY (Marian R. Chertow & Daniel C. Esty eds., 1997); Richard B. Stewart, *Models for Environmental Regulation: Central Planning versus Market-Based*

technological constraints in developing countries that might render such market-based approaches less effective and possibly more expensive than traditional forms of regulation, such as technology-based standards.

Fifth, Lakshman Guruswamy, the Nicholas Doman Professor of International Law and Director of the Energy & Environmental Security Initiative at the University of Colorado, writes about what is certainly one of the greatest challenges of the twenty-first century: to meet increasing global energy demand within the framework of sustainable development. In particular, how will developing countries meet the growing energy demands of their economies, while they and the rest of the world attempt to resolve the many problems associated with burning fossil fuels? Professor Guruswamy's analysis suggests that no answer to this question is currently available because of the absence of a coherent institutional (that is, international legal) framework in which to resolve the tension between growing energy demand for development and the need to reduce environmental problems associated with fossil-fuels. He offers a research agenda, however, which might help pave the way toward an effective institutional solution.

These five symposium papers identify important problems at the intersection of development and environment, challenge preconceptions about those problems as well as conventional solutions, and point the way toward alternative, potentially more effective, solutions. Just as importantly, the symposium authors demonstrate the great utility of interdisciplinary work. Among the most gratifying aspects of the conference was the high level of interest the authors showed in one another's presentations. Scholars who previously did not know each other (or each others' works) began planning collaborative projects. Hopefully, those future collaborations will contribute as much as the present collection of papers does to both the substantive analysis of combined environmental and developmental issues and the evolution of useful methodologies for analysis.

Finally, I would be remiss if I did not recognize the extraordinary efforts of the editors of the *Indiana Law Review*, particular the Editor-in-Chief, Seth Thomas, and the Symposium Editor, Katie White, in planning, organizing, and executing this successful venture.

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*Approaches*, 19 B.C. ENVTL. AFFAIRS L. REV. 547 (1992); Theodore Panayotou, *Economic Instruments for Environmental Management and Sustainable Development*, Paper prepared for the United Nations Environment Programme's Consultative Expert Group Meeting on the Use and Application of Economic Policy Instruments for Environmental Management and Sustainable Development, Nairobi, Feb. 23-24, 1995 (1994), available at [http://www.conservationfinance.org/Documents/CF\\_related\\_papers/panyouto\\_econ\\_instru.pdf](http://www.conservationfinance.org/Documents/CF_related_papers/panyouto_econ_instru.pdf).