



***Studies in Comparative International Development***  
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**Special Issue: "Greening Development: The Role of the  
Developing-Country Private Sector"**

**Abstracts**

Technology Acquisition and Innovation in the Developing World: Wind Turbine Development in China and India

*Joanna I. Lewis, Pew Center on Global Climate Change*

**Abstract** Although China and India rely on coal to fuel most of their electricity generation, both countries are also home to burgeoning wind power industries. India currently leads the developing world in manufacturing utility-scale wind turbines, and China is close behind. This study examines the technology development strategies that have been pursued by the companies Suzlon and Goldwind, India and China's leading wind turbine manufacturers. While the institutional and other barriers present in large, developing countries such as China and India certainly challenge any simplistic notions of energy leapfrogging, an examination of wind turbine development in these countries has shown that substantial technical advances are possible in a relatively short time. While both Suzlon and Goldwind pursued similar licensing arrangements to acquire basic technical knowledge, Goldwind's technology development model lacks Suzlon's network of strategically positioned global subsidiaries that contribute to its base of industry knowledge and technical capacity. This examination of how two leading developing-country firms have acquired and assimilated advanced technologies provides crucial insights into facilitating international technology transfers, which will be an important component of any technological leapfrogging strategy to achieve lower greenhouse gas emissions in the developing world.

**Full Text** (may require subscription):

<http://www.springerlink.com/content/j74k79246r7243x7/fulltext.pdf>

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Importing Environmentalism: Explaining Petroleos Mexicanos' Proactive Climate Policy

*Simone Pulver, Brown University, Watson Institute for International Studies*

**Abstract** Theories of environment and development tend to preemptively strip developing-country firms of environmental agency, depicting them as passive targets of market, regulatory, and ideational influences originating elsewhere. This research examines the processes by and conditions under which developing-country firms actively "import" environmental norms, programs, and practices, drawing on a case study of Petroleos Mexicanos (Pemex)—one of the world's largest oil companies and the only nationally-owned, developing-country oil company that has adopted a cooperative corporate climate policy. The article demonstrates that the company's decision to support action on climate change resulted from efforts by climate policy entrepreneurs within Pemex's environment division. They showed agency in choosing to prioritize the climate issue, in scanning their institutional environment for a climate policy template, in adjusting the template to suit Pemex's particular circumstances, and in promoting the climate policy to internal and external constituencies. The research also highlights the prominent role of private-sector channels in processes of environmental norm diffusion.

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<http://www.springerlink.com/content/350115u22v1262g7/fulltext.pdf>

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Ecocertification of Ecuadorian Bananas: Prospects for Progressive North-South Linkages?  
*Cristian Melo, Florida International University*  
*Steven Wolf, Cornell University*

**Abstract** Results of our 2003 survey of Ecuadorian banana producers' farming practices indicate that firms engaged in labeling schemes generate lower environmental risks than uncertified firms. Certified firms exhibit relatively comprehensive environmental management systems, while noncertified farms exhibited limited, uneven, and unstructured adoption of best management practices. We explore the specific circumstances that differentiate the more environmentally friendly firms from their conventional counterparts, and we identify the sustainability pathways available to differently situated firms engaged in banana production. We find that small certified operations mobilize social capital to engage alternative markets and add value to their products, while large certified firms rely on financial backing of international organizations to modernize their operations. For both large and small firms producing bananas in Ecuador, the sustainability gains we observe are premised on mobilization of external resources from actors in the industrialized world. We demonstrate that improved environmental performance of commodity production cannot be attributed to local resources, local dynamics, and local institutions. Our analysis also points to the limits of export of sustainability from rich nations to developing nation firms. Only a fraction of the industry participates in certification programs, and large segments of the population of firms are likely to remain unattractive and inaccessible to external resource providers. In this context, it appears that the state must define and enforce minimum environmental standards to progressively raise performance.

**Full Text** (may require subscription):

<http://www.springerlink.com/content/1g87j0070n567h16/fulltext.pdf>

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Globalizing Corporate Environmentalism? Convergence and Heterogeneity in Corporate Greening in India  
*Richard Perkins, London School of Economics*

**Abstract** What explains the recent emergence of corporate environmentalism in developing countries? Why have certain firms surpassed others in greening their activities? This article situates the uneven dynamics of corporate greening within a theoretical framework of convergence, firm specificity, and heterogeneity. Through a comparative analysis of firms in three sectors—automobiles, steel, and power—of the Indian economy during the past two decades, I show that corporate greening is rooted in processes of growing international political engagement, market integration, and transnational social communication. Together, these processes have unleashed various economic and sociological convergence dynamics, which have led firms in India to adopt more environmentally sound innovations and performances increasingly similar to those found in many developed countries. Yet firms' connectedness to external pressures fostering "upward" convergence varies, as do their internal capabilities to respond to them. Heterogeneity in these internal and external variables, and the firm-specific strategies linking them, accounts for much of the unevenness in patterns of corporate environmentalism observed in India.

**Full Text** (may require subscription):

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