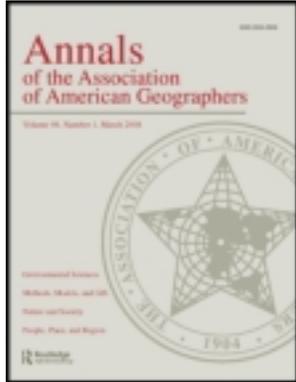


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Annals of the Association of American Geographers

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/raag20>

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Version of record first published: 29 Feb 2008.

To cite this article: Diana Liverman (2004): Who Governs, at What Scale and at What Price? Geography, Environmental Governance, and the Commodification of Nature, *Annals of the Association of American Geographers*, 94:4, 734-738

To link to this article: <http://dx.doi.org/10.1111/j.1467-8306.2004.00428.x>

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Who Governs, at What Scale and at What Price? Geography, Environmental Governance, and the Commodification of Nature

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Geography has much to offer a world in which environmental change is widespread and where new actors, scales, and metrics are transforming environmental decisions. With a disciplinary core that embraces human–environment relations and regional difference, geography can take a leading role in shaping environmental and international alternatives in the twenty-first century through research, training, and involvement in public policy.

Two of the most important emerging themes in environmental management are the commodification of nature and the reworking of environmental governance to include consumers, corporations, environmental groups, and transnational institutions. These themes are topics of vigorous political and intellectual debate concerning whether and how to put a price on environmental services and who should make environmental decisions. Pricing nature and governing the environment are important elements of the discussions of how to respond to processes of globalization and global environmental change and their impacts on people around the world. Geographers can engage these discussions from a variety of perspectives and roles, for example, as ardent critics of environmental economics or activists against globalization, or as those who work within environmental management to develop and refine the metrics of environmental valuation and new institutions of governance.

The Commodification of Nature: Environmental Services and Markets

Across a wide range of countries and institutions there is now widespread acceptance that the way to protect the environment is to price nature's services, assign property rights, and trade these services within a global market (Daily 1997; Anderson and Leal 2001;

Pagiola, Bishop, and Landell-Mills 2002). In Latin America, these ideas have become part of a general neoliberal consensus that argues that efficient resource management and allocation requires the allocation of individual titles in land, water, forests, biodiversity, and fisheries, and the trading of these resources and rights within a free market that will assign high prices to scarce resources and encourage sustainable management of renewable resources (Roberts and Thanos 2003). Harvey defines this commodification and privatization as a strategy of "accumulation by dispossession" where states collude with capital to pillage nature and the commons (Harvey 2004).

In Costa Rica, for example, prices have been assigned to environmental services that include bioprospecting (fees paid by pharmaceutical companies for rights to collect plants and animals); debt for nature swaps (where debt is forgiven or restructured in return for local funds invested in environmental protection); watershed protection (downstream water users pay upstream landowners to protect forests); carbon sequestration (U.S. companies pay for reforestation or forest protection to reduce CO₂ emissions); ecotourism and park entrance fees (tourists pay to enjoy wild landscapes); scientific research (charges to foreign field researchers); and fair trade/green labeling (higher prices for products produced sustainably) (Chomitz, Brenes, and Constantino 1998, critically assessed by Rojas and Aylward 2003).

This move to commodify nature and market its services is a massive transformation of the human–environment relationship and of the political economy of regions and landscapes. These transformations are core concerns of geography, and we should have a lot to say about them. Those geographers who accept the basic market model have many opportunities to refine it. For example, geographic analysis has much to offer in the new era of marketed environmental services because of

the complexity of assigning values and creating markets around the world. Traditional geographic skills such as quantifying resources like water or biomass (e.g., Naughton-Treves 2004), and surveying public perceptions in a variety of places can refine environmental valuation techniques based on contingent analysis or replacement and substitute costs beyond those promoted by orthodox environmental economics. Geographic information systems allow monitoring of new property rights boundaries and titles including those associated with the struggles of indigenous peoples for traditional lands (e.g., Knapp and Herlihy 2002). Regional geographic knowledge, such as description of exotic locations, is also an important basis for constructing markets and selling services in ecotourism, carbon mitigation, and scientific investigation.

Geographers can also offer forceful criticisms of “selling nature to save it,” illuminating unequal power in negotiating prices and participating in markets (McAfee 1999; Watts 2002; Mutersbaugh 2003); the impossibility of assigning future discount rates or current prices to irreplaceable species and landscapes; and the general ethical problems in assigning property rights and prices to environments of cultural and religious value or communal ownership (Bromley and Paavola 2002).

Markets in environmental services are becoming the dominant approach to managing and protecting the environment in the twenty-first century. The challenge for geography can include working within the system to provide more accurate and equitable systems of rights, prices, and markets or working to reverse or overthrow this widespread commodification of nature, which increasingly includes aspects of human biology. Geography can also be the forum for discussions about topics such as bioprospecting, carbon trading, and natural protected areas, contributing to creating an empirical and theoretical framework to assess if such environmental services could be adequate and beneficial under certain circumstances.

Reworking Environmental Governance

The growing power of multinational institutions, combined with the emergence of new actors and local scales in environmental decision making, provides another important arena for geographic research and practice. New actors—including consumers, corporations, and nongovernmental organizations—are expanding the focus on institutions of government (such as parliaments, bureaucracies, and law) to broader conceptions of environmental governance, where diverse groups in society wield power and authority over envi-

ronmental policies and decisions (Dalby 2002). A variety of factors drive the reworking of environmental governance, including the weakening of central government institutions associated with neoliberal policies of deregulation, budget cuts, privatization, and decentralization, as well as a growth in social activism and new forms of expression and organization such as the Internet (Sonnenfeld and Mol 2002).

Consumers are emerging as important new agents in environmental policy, choosing to exercise collective power to boycott polluters and poor labor practices and purchasing products from companies with better environmental and social standards. Often coordinated by transnational nongovernmental organizations (NGOs), “shopping to save the planet” responds to information about environmental practices and workplace conditions in different regions of the world (Elkington and Hailes 1993; Green Consumer Guide 2004). A parallel movement is associated with shareholders and memberships of large institutional investors such as pension funds, who are requiring that funds focus on low carbon, sustainable, or socially just investments (Clark and Hebb forthcoming).

Geographers who work on trade and environment, especially with knowledge of production impacts and commodity chains in specific regions, have much to offer the informed consumer or shareholder and may well have important criticisms of marketing claims regarding the environmental and social benefits of certain products (Princen, Maniates, and Conca 2002; Hughes and Reimer 2003). This may involve a conscious choice to take the insights of fieldwork into the public domain, or at least to publish results in accessible forms such as the Internet.

The fear (or hope) of consumer sanctions and reputational risk is one of the main drivers of formal programs in corporate social responsibility and triple bottom line accounting (measuring performance on economic, social, and environmental criteria), and this provides geography with a related opportunity, which is to work directly with or in opposition to corporate social responsibility programs. As companies such as BP or Ben & Jerry’s attempt to gain market advantage through promoting their sustainable and socially responsible activities, they may seek information or legitimacy through associations with researchers who can provide guidance on local conditions, new approaches to corporate accounting, and students trained to work within the corporate sector. Some researchers will choose to engage the corporate sector as consultants or collaborators, providing analyses that promote corporate best practices and thus encouraging environmental protection, social justice, and organizational change (e.g., www.sustainability.org).

com). Others may take more critical and skeptical views, seeing corporate funding for environmental research as cooptation or accusing the business sector of “greenwashing” without serious commitment to environment (Castree and Sparke 2000).

Geography has long associations with environmental NGOs, publishing research, and undertaking consultancies that contribute to debates and policy prescriptions relating to issues such as Amazonian deforestation, climate change, or urban environmental justice (e.g., Hecht and Cockburn 1989; Heiman 1996). As NGOs have taken on a wider range of responsibilities—managing nature reserves, funding science, and often filling gaps left by the withdrawal of the state—they are facing crucial challenges that will influence the relationships between geographers and NGOs over the next decade. A recent study reports the collective budget of the NGO sector across twenty-six countries as \$1.2 trillion dollars with 31 million full-time workers, larger than many national economies and a significant component of many countries’ gross domestic product (Johns Hopkins University 2004). Many NGOs are becoming highly professionalized, hiring their own environmental researchers and commissioning studies from universities and consultancies. While many excellent studies and publications are coming from the NGO community and having a much greater influence on policy than university research, some criticize these studies as biased and not subject to peer review and accountability (Christensen 2003; Jepson 2004). For many larger and transnational NGOs, some of the changes include: closer relationships with corporations and government and thus working within the system rather than to overthrow it; a focus on solutions rather than problems; a tendency to build networks rather than individual expansion; fundraising that plays not on guilt but the idea of investment; a move from single- to multiple-issue campaigns; and a new emphasis on demonstrating transparency and accountability in the use of funds (SustainAbility 2003). These trends parallel pressures within the academy, including the need to look beyond our own universities and government research grants for funding from the corporate sector (Demeritt 2000); to provide information and solutions to stakeholders rather than basic ivory tower research or only criticism (Bales, Liverman, and Morehouse forthcoming); and for inter/multidisciplinary research rather than focused disciplinary analysis.

Geographers can take a critical stance regarding the emergence of NGOs captured by corporate relationships and conduct local case studies that show the failures of this new form of development (Neumann 1998; Sundberg 2003). Or they could collaborate with NGOs to adapt programs to local conditions, develop accounta-

bility measures, train students who are prepared to work in this sector, and produce publications that will influence their vision and practices. Personally, geographers can decide to become members of NGOs and seek election to their boards, or seek jobs or sabbaticals in the nonprofit sector.

While consumers, corporations, and NGOs are players in environmental and international relations, the major actors are still governments and intergovernmental organizations. The twenty-first century brings some important new institutions of international environmental governance—such as new regimes for climate and trade—and changes in some of the older multilateral organizations. Geography has made modest contributions to the evolution and evaluation of these institutions, for example, in contributions to (or criticisms of) the science that underlies the climate regime (Demeritt 2001) or in advising the World Bank regarding deforestation or the role of social capital in development (Bebbington et al. forthcoming). Geographers are also part of the chorus that documents the environmental failings of trade agreements and that attacks the dominant power of the World Trade Organization and other institutions (Mason 2001; Sanchez 2002; Peet 2003). Geographers should draw on their expertise in thinking about how to reform or replace these global institutions with organizations that include greater representation of civil society, treaties that provide enforceable and equitable regimes to prevent climate change and biodiversity loss, and trade agreements that include stronger environmental protections and fairer relationships (Stiglitz 2002; Monbiot 2004).

What skills does geography bring to practical processes of international environmental governance in the twenty-first century? I suggest that we can draw on two of our founding traditions—the human–environment relationship and spatial differentiation—to provide more nuanced and regionally detailed analysis of the causes and consequences of global environmental change and in designing the regimes that respond to these changes. Our expertise in climate downscaling and vulnerability assessment can provide ongoing assessments of the regional impacts of climate change and of the implications of proposals for climate stabilization at higher levels of carbon emissions. Regional analysis of deforestation and the restructuring of manufacturing and transport are needed to refine the carbon budgets that may underpin emissions caps and markets. We need more geographers with the skills to link globalization, trade, and environment to show the conditions under which trade agreements and related regimes promote or undercut environmental protection at the local level (e.g., Angel

and Rock 2000; Bridge 2002) and to work within international environmental institutions to provide regional expertise and to interpret environmental science and its social context for decision makers.

New global institutions are unlikely to produce sustainable environmental futures to the extent that they fail to account for regional differences and transformations that affect the drivers and impacts of environmental change and the local political support for national and transnational agreements. And geography will fail as critic or as designer of environmental governance if we lose our particular knowledge of specific world regions and what Derek Gregory calls our “caring for distant strangers” (this volume). And this loss is increasingly likely when departments prefer thematic or methodological rather than regional expertise (including languages) in hiring and curriculum, when the funding of area studies is lost to comparative programs in foundations, and when government support for area and international studies is subject to political investigations regarding alleged anti-U.S. positions (Ford Foundation 1999; King-Irani 2003). Area studies and regional geography has been a powerful source of theoretical innovation (for example the evolution of development, democratization, and social movement theory within Latin American Studies), and an important arena for international collaboration (Szanton 2002; Bebbington 2003). Geographers must contribute to a rethinking of area studies that sustains skills in language and fieldwork within contexts that link the local to the global and promote collaboration with local scholars and residents. We can also draw on our passion for regional study to nurture the vision of those students committed to social and environmental change by providing them with the tools and theories to make their analyses and actions more effective.

References

- Anderson, T. L., and D. R. Leal. 2001. *Free market environmentalism*. New York: Palgrave.
- Angel, D., and M. T. Rock. 2000. *Asia's clean revolution: Industry, growth and the environment*. Sheffield, U.K.: Greenleaf Publishing.
- Bales, R. C., D. M. Liverman, and B. J. Morehouse. Forthcoming. Integrated assessment as a step toward reducing climate vulnerability in the southwestern United States. *Bulletin of the American Meteorological Society*.
- Bebbington, A. 2003. Global networks and local developments. *Agendas for Development Geography. Tijdschrift voor Economische et Sociale Geografie* 94 (3): 297–309.
- Bebbington, A., S. Guggenheim, E. Olson, and M. Woolcock. Forthcoming. Exploring social capital debates at the World Bank. *Journal of Development Studies* 40 (5) or 40 (6).
- Bridge, G. 2002. Grounding globalization: The prospects and perils of linking economic processes of globalization to environmental outcomes. *Economic Geography* 78 (3): 361–86.
- Bromley, D., and J. Paavola, eds. 2002. *Economics, ethics, and environmental policy: Contested choices*. London: Blackwell.
- Castree, N., and M. Sparke, eds. 2000. Special issue: Professional geography and the corporatization of the university. *Antipode* 32 (3): 222–39.
- Chomitz, K. M., E. Brenes, and L. Constantino. 1998. *Financing environmental services: The Costa Rican experience and its implications*, World Bank report. Washington, DC: World Bank. <http://lnweb18.worldbank.org/ESSD/envext.nsf/44ByDocName/Publications> (last accessed on 1 May 2003).
- Christensen, J. 2003. Auditing conservation in an age of accountability. *Conservation in Practice* 4:12–19.
- Clark, G. L., and T. Hebb. Forthcoming. Understanding pension fund corporate engagement in a global arena. *Relations Industrielles-Industrial Relations*.
- Daily, G. C., ed. 1997. *Nature's services: Societal dependence on natural ecosystems*. Washington, DC: Island Press.
- Dalby, S. 2002. Environmental governance. In *Geographies of global change*, ed. R. J. Johnston, P. J. Taylor, and M. J. Watts, 427–41. Oxford, U.K.: Blackwell.
- Demeritt, D. 2000. The new social contract for science: Accountability, relevance, and value in US and UK science and research policy. *Antipode* 32 (3): 308–29.
- . 2001. The construction of global warming and the politics of science. *Annals of the Association of American Geographers* 91 (2): 307–37.
- Elkington, J., and J. Hailes. 1993. *The green consumer*. New York: Penguin.
- Ford Foundation. 1999. *Crossing borders: Revitalizing area studies*. New York: Ford Foundation.
- Green Consumer Guide. 2004. <http://www.greenconsumerguide.com> (last accessed 1 May 2004).
- Harvey, D. 2004. The new imperialism: On spatio-temporal fixes and accumulation by dispossession. In *The Socialist Register*, ed. L. Panitch and C. Leys, 63–87. New York: Monthly Review Press.
- Hecht, S., and A. Cockburn. 1989. *Fate of the forest: Developers, destroyers, and defenders of the Amazon*. London: Verso.
- Heiman, M. 1996. Race, waste and class: New perspectives on environmental justice. *Antipode* 28 (2): 111–21.
- Hughes, A., and S. Reimer, eds. 2003. *Geographies of commodity chains*. London: Pearson.
- Jepson, P. 2004. *Auditing conservation: Reflections and findings from an independent audit of Asian elephant conservation*. Loris: Forthcoming.
- Johns Hopkins University. Global civil society at-a-glance: Major findings of the Johns Hopkins Comparative Nonprofit Sector Project. Institute for Policy Studies, Johns Hopkins University. <http://www.jhu.edu/~cnp/pdf/glance.pdf> (accessed on 15 March 2004).
- King-Irani, L. 2003. We aren't the world: Bills tie area studies funding to national interests. In *These Times* 28 (3): 12. http://inthesetimes.com/comments.php?id=488_0_2_0_M (last accessed on 1 May 2004).
- Knapp, G., and P. Herlihy. 2002. Mapping the landscape of identity. In *Latin America in the twenty-first century: Challenges and solutions*, ed. G. Knapp. Conference of Latin Americanist Geographers and University of Texas Press. *Yearbook of Conference of Latin Americanist Geographers* 27:251–68.

- Mason, M. 2001. Transnational environmental obligations: Locating new spaces of accountability in a post-Westphalian global order. *Transactions of the Institute of British Geographers* 26 (4): 407–29.
- McAfee, K. 1999. Selling nature to save it? Biodiversity and green developmentalism. *Environment and Planning D—Society and Space* 17 (2): 133–54.
- Monbiot, G. 2004. *The age of consent: Manifesto for a new world order*. New York: HarperCollins.
- Mutersbaugh, T. 2003. Ethical trade and certified organic coffee: The implications of agricultural product certification for Mexican producer households and villages. *Transnational Law and Contemporary Problems* 12 (1): 89–107.
- Naughton-Treves, L. 2004. Deforestation and carbon emissions at tropical frontiers: A case study from the Peruvian Amazon. *World Development* 32 (1): 173–90.
- Neumann, R. P. 1998. *Imposing wilderness. Struggles over livelihood and nature preservation in Africa*. Berkeley: University of California Press.
- Pagiola, S., J. Bishop, and N. Landell-Mills. 2002. *Selling forest environmental services: Market-based mechanisms for conservation*. London: Earthscan.
- Peet, R. 2003. *Unholy trinity: The IMF, World Bank, and WTO*. New York: Zed Press.
- Princen, T., M. F. Maniates, and K. Conca, eds. 2002. *Confronting consumption*. London: MIT Press.
- Roberts, T., and N. Thanos. 2003. *Trouble in paradise: Globalization and environmental crises in Latin America*. New York: Routledge.
- Rojas, M., and B. Aylward. 2003. What are we learning from experiences with markets for environmental services in Costa Rica: A review and critique of the literature. London: International Institute for Environment and Development. <http://www.iied.org/eep/pubs/documents/MES2.pdf> (last viewed on 1 May 2003).
- Sanchez, R. 2002. Governance, trade, and the environment in the context of NAFTA. *The American Behavioral Scientist* 45 (9): 1369–93.
- Sonnenfeld, D., and A. Mol. 2002. Globalization and the transformation of environmental governance. *The American Behavioral Scientist* 45 (9): 1318–39.
- Stiglitz, J. E. 2002. *Globalization and its discontents*. New York: W.W. Norton.
- Sundberg, J. 2003. Conservation and democratization: Constituting citizenship in the Maya Biosphere Reserve, Guatemala. *Political Geography* 22:715–40.
- SustainAbility. 2003. *The 21st century NGO: In the market for Change*. London, U.K.: SustainAbility.
- Szanton, D. L., ed. 2002. *The politics of knowledge: Area studies and the disciplines*. Berkeley: University of California Press.
- Watts, M. 2002. Green capitalism, green governmentality. *American Behavioral Scientist* 45 (9): 1313–17.

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