Forum

The Problem of Consumption

Peter Dauvergne*

Seasoned sailors avoid the clockwise vortex of calm winds and slow-moving currents of the North Pacific Gyre. And with good reason. Inside this dead zone is the Great Pacific Garbage Patch, where jellyfish ingest tiny plastic pellets in a floating graveyard of plastic at least twice the size of the US state of Texas. Here rests our empty plastic water bottles, lost footballs, and disposable cigarette lighters.

The next decade will likely see this Garbage Patch double in size as even more plastic washes out to sea. Sunlight will eventually break down much of this debris into small pellets. But this is hardly good news, as sharks, tuna, and whales feed on the pellet-eating jellyfish. Why, even with the rise over the last few decades of environmental norms, structures, organizations, policies, financing, and rules of governance, are the oceans continuing to fill with garbage? And this is only one of many possible examples of escalating global environmental problems. Why is the Arctic melting, faster and faster? Why are over half of the world's original forests and wetlands now gone?

There are, of course, many entwined reasons. One of the biggest is "the problem of consumption," not only what consumers choose and use, but more significantly how systemic drivers shape the quantities, costs, and benefits of producing, distributing, and disposing of consumer goods. At the core of this problem is the inability of environmental governance to alter, in any fundamental way, the *global* ecological effects of these drivers—such as advertising, economic growth, technology, income inequality, corporations, population growth, and globalization—that together are causing consumption, much of which is wasteful, to rise steadily worldwide.

* I would like to thank Jane Lister (postdoctoral fellow at the University of British Columbia's Liu Institute for Global Issues) as well as the participants and organizers (Jennifer Clapp, Steven Bernstein, and Matthew Hoffmann) at the Workshop on Governance: New Frontiers in Global Environmental Governance, University of Waterloo, 28–29 January 2009, for providing perceptive feedback on this essay. The anonymous reviewers for *Global Environmental Politics* were also especially helpful, and for this I am grateful, too.

Global Environmental Politics 10:2, May 2010
© 2010 by the Massachusetts Institute of Technology

On many measures, policies, actions, and technologies to shape consumption appear to be "improving" environmental management. But too often the measures are close-up snapshots that cut out a much bigger, more complex, global picture of crisis. One common set of measures zooms in on consumer use of a product. Here, it is easy to find progress: simply compare the energy needs of a refrigerator or microwave or TV from the 1970s with a 2010 model. Another common set of measures zeros in on national consumption patterns. Here it is harder to find positive trends. Still, many exist—from higher recycling rates to more green buildings—for those who are looking for signs that capitalist economies are capable of shifting toward some form of sustainability.

Yet all of these measures need to be put into the context of a rising global population and rising per capita consumption in a globalized capitalist economy, a system that creates incentives—indeed, makes it imperative—for states and companies to "externalize externalities"¹ beyond the borders of those who are actually doing most of the consuming. The challenge for environmentalists and policymakers is therefore about much more than influencing "consumers"—much of what is happening globally is beyond their control. Rather, it is about transforming a global system that is driving unsustainable production, much of which is increasingly masking itself as sustainable consumption. Fundamentally, this means that any move toward sustainable consumption will require much better full cost accounting and more equitable distribution of income: locally, nationally, and globally.

Research in the subfield of global environmental politics is increasingly probing this deep problem of consumption. Examples, to name just a few, include Michael Maniates on the "individualization of responsibility," Thomas Princen on "sufficiency" and "distancing," Jennifer Clapp on "distancing of waste" and "norm emergence," Doris Fuchs and Sylvia Lorek on "sustainable consumption," Paul Wapner and John Willoughby on "lifestyle change," Juliet Schor on the "new consumer culture," Jack Manno on "commoditization," Matthew Paterson on "cultural political economy," and my work on "shadows of consumption."²

Still, across the social sciences relatively little research has probed the full complexity and difficulty of "governing consumption globally" compared with, say, the extensive research on global environmental governance and trade agreements, international environmental negotiations, or nongovernmental organizations. One purpose of this essay is to encourage more research on this topic among *GEP* scholars. A second is to stress the need for international efforts to govern consumption that go beyond the current Marrakech process—an attempt to draft a 10-Year Framework on "sustainable production and consumption" for the 2011 session of the UN Commission on Sustainable Development.

^{1.} I am indebted to one of the anonymous reviewers for this phrasing.

See Princen, Maniates, and Conca 2002; Maniates 2001; Princen 2005; Clapp 2002; Clapp and Swanston 2009; Fuchs and Lorek 2005; Wapner and Willoughby 2005; Schor 2004; Manno 2002; Paterson 2007; Mol 2001, 2002; and Dauvergne 2008.

A third is to challenge the common view among international policymakers and business leaders that a greening of household consumption can significantly reduce the global costs of consumption. Here, local-to-global analysis typical of *GEP* scholarship has the potential to play a critical role in helping to redirect policy efforts.

The Global Costs of Consumption

The direct impact of thousands of everyday choices by 6.8 billion consumers partly explains the escalating environmental crisis. But obvious consequences—a Coke bottle floating down a smoke-colored river into the Pacific—comprise just a fraction of the real costs of consumption. Uncovering the full costs requires an accounting of the many indirect and hidden spillovers of supplying and replacing consumer products. These shadow effects of consumption can have as great, if not greater, consequences. And the globalization of corporations, trade, and financing is making these shadows longer, deeper, and harder to see.

Old IBM and Apple computers are piling up in developing countries with relatively low environmental standards, where recycling hazardous parts involve few safeguards for workers, many of them children. Inequalities are growing within and between countries, as costs spill into places with less power, from the slums of India to the aboriginal communities of North America. Wasteful and excessive consumption is increasing as consumer prices underestimate the environmental and social costs of everything from a cup of Colombian coffee on sale in Paris to a made-in-China Barbie on sale in San Francisco. And future generations are being exposed to great risks, with ignorance a green light to proceed rather than a sign for precaution.³

Perhaps most worrying of all, over time the costs of consumption are drifting into the world's most vulnerable ecosystems and poorest societies as powerful states and corporations externalize the environmental and social costs from the majority of consumers. This is adding to a growing crisis, for example, for the Inuit communities in the Arctic as industrial processes—from manufacturing in Europe to incinerating garbage in Asia—poison the land with persistent organic pollutants that travel up food chains and grasshopper across the globe through a process of repeated evaporation and redeposit until settling in cold climates.⁴

Such a process leaves consumers largely unaware—and corporations largely unaccountable for—the true costs of consumption. How many consumers in Tokyo, for example, would connect living in a concrete high-rise to deforestation in Papua New Guinea? Yet, over the last half-century, the most common use of the giant old-growth trees of Southeast Asia and Melanesia has been

- 3. For the example of computer waste, see Iles 2004.
- 4. See Downie and Fenge 2003.

for plywood paneling to mold concrete in Japan. Called *kon pane* in Japanese, construction companies generally burned or left these panels to rot after only a few uses. Why such fantastic waste? The answer is simple: it was cheaper to buy new panels than clean the old ones.⁵

Consumers elsewhere are equally unaware of the externalities of consumption on the tropics. China's decision in 1998 to ban natural forest logging at home caused timber imports to jump. Overall timber imports have quadrupled over the last decade; and today half of all traded timber lands in China.⁶ Much of the timber entering China is illegal—as high as 80 percent from countries like Indonesia, Cambodia, and Papua New Guinea—thus depriving governments and communities of revenue. Chinese consumers are not alone in purchasing and using these wood products. Chinese exports of wooden furniture to Europe and North America, for example, have been growing rapidly in recent years, with at least some of this furniture made from illegal logs from places like Southeast Asia and eastern Russia.

Rising consumption of non-timber products is also driving tropical deforestation. On Indonesia's outer islands, for example, plantation companies are burning down degraded forests to clear land for oil palm for the rising world-wide consumption of margarine and oil for deep-frying. Raging forest fires every year in Indonesia are now one of the world's biggest sources of greenhouse gases. Another example is in the Amazon, where the primary cause of deforestation is land-clearing for cattle ranches as Brazil strives to hold onto its position as the world's largest beef exporter by volume in a global marketplace where meat consumption is rising quickly. Clearing land for soybean plantations (for export markets from animal feed to processed foods) is another core cause of deforestation in the Amazon.

Granted, this is all producing lots of cheap food—as well as lots of profits for multinational agricultural companies and the global fast-food industry. But the costs for the tropics far outweigh the benefits for increasingly obese consumers. And this is only one of many possible examples of how an unbalanced global economy is displacing much of the costs of consumption onto the world's poorest peoples and most vulnerable ecosystems. Just look at the families in Manila now living inside smoking mountains of fast-food wrappers, car tires, and toxic waste drums. Or at the polar bears slipping into endangered status as their Arctic home melts away.

Governing Consumption Globally

Many factors complicate global environmental governance of consumption. A growing world population and rising per capita incomes are two of the most

- 5. See Dauvergne 1997.
- 6. Laurance 2008, 1184.
- 7. For a recent analysis of the global agriculture industry, see Clapp and Fuchs 2009.

significant. The world population grew during the second half of the 20th century more than it had in the preceding four million years. Since the 1970s, the global economy has been expanding even faster than population, with world Gross Domestic Product (in constant US\$ 1995) almost tripling from 1970–2000. The global economy grew even faster from 2001–2006: faster than during any five-year period since World War II.8

World economic growth slowed considerably in 2008 and 2009 during the global financial downturn. Yet the future will still see a much larger world population and, unless the world economy collapses, much higher per capita rates of consumption. By late 2009, the International Monetary Fund already saw many signs of a "recovery" of the world economy, with much higher growth predicted for 2010.9 And most analysts still expect the global middle class to triple by 2030: a group able to afford big-ticket items like cars and home appliances. By 2050 the world population is set to exceed 9 billion, with over 95 percent of this increase occurring in developing countries like Indonesia, India, and China. In this setting, changing the environmental choices of enough consumers fast enough to make a *global* difference is very hard, and getting harder.

At the same time, the world market—what some call the global consumer culture—is widening and deepening. One indicative statistic is the value of world merchandise exports, which now exceeds US\$16 trillion. This is up from US\$ 6 trillion in 2000, an amount that by then was already more than a 100 times higher than in 1948. Another revealing statistic is the flow of foreign direct investment into developing countries which, before the global financial crisis of 2007–09, had reached US\$380 billion in 2006, up from US\$ 22 billion in 1990.

Economic globalization can allow new technologies or more environmentally friendly products to reach more consumers, faster and with enhanced efficiencies for resource and energy inputs. The environmental history of the automobile—including a diffusion of regulations and technologies from places like California to the rest of the world—provides one example of how the globalization of markets can ramp up global standards. Still, such benefits are more than outweighed by the environmental costs spilling from the globalized production, trade, and investment chains that supply increasing numbers of consumers with goods and services.

Many other forces and factors also influence the sustainability of consumption. Advertising to influence consumer decisions is one obvious source. Worldwide, trillions of dollars are spent each year to convince consumers to buy

^{8.} World Bank 2006; World Bank, World Development Indicators Online, available at www .worldbank.org.

^{9.} IMF 2009.

^{10.} World Bank 2006; World Bank, World Development Indicators Online, available at www .worldbank.org.

^{11.} See Vogel 1995.

new products and services: an amount that's growing fast under many guises, from athletes wearing brands to TV actors drinking Starbucks coffee. This is deepening a culture of consumerism, especially among high-income earners. All of the messaging is saying buy more, consume more to be happy. Advertisers creatively promote "perceived obsolescence" and imbue buying something like a car with feelings like self-worth, freedom, adventure, and success. This is hardly unique to the auto industry, however: the same is true for computers, refrigerators, cell phones, and so on.

And advertising is only one of the factors making it difficult to influence consumer decisions consistently and effectively. Others include habits, skepticism, convenience, availability, affordability, future savings, and opportunity, to name just a few. Many consumers ultimately want ease of purchase and good value; some are also inconsistent, saying one thing and doing another. Genuine and perceived uncertainty in what actually comprises "sustainable consumption" and "sustainable lifestyles" can also cause consumers to lose interest or confidence, providing a justification for some people to prioritize other factors above environmentalism.

Moreover, consumers buy products not only for personal reasons, but also in response to socioeconomic constraints, opportunities, and expectations. The choices consumers make around whether to purchase—and then when to drive—a car is one obvious example. The availability, reliability, and affordability of public transportation all affect this decision. Automakers know this well. Many of the biggest companies have a long record of opposing—and sometimes even destroying—public transportation (such as dismantling the electric trolley system in the United States). 12

Many other more subtle structures, however, can influence consumer choices. Sports leagues for children, for example, can leave parents driving to games hours away. Carpooling is certainly possible; but, for a parent without a car, requesting weekly rides is a tough option given the expectations of the coaches, parents, and children. As these opportunities, constraints, and expectations coalesce, even committed environmentalists commonly make decisions that increase their personal ecological footprint, thereby making choices that feel frustratingly hypocritical. This, in turn, can contribute to environmental fatigue: to an environmentalist carrying home groceries in a plastic bag despite full knowledge of the potential harm.¹³

Acting Incrementally, Failing Globally

Influencing individual consumers to act more sustainably, then, is one of the most complex and difficult challenges for environmental governance. Influenc-

^{12.} Yago 1984, 59-61; and Freund and Martin 1993, 135-37.

Some recent literature on sustainable consumption and sustainable lifestyles includes Fuchs and Lorek 2005; Vermeir and Verbeke 2006; Jackson 2004, 2005, 2008; Mont and Plepys 2008; Ali 2009.

ing enough consumers to affect global change is an even greater challenge. And transforming major systemic drivers of consumption is still more difficult and complex. The overall system of global environmental governance *is* improving management on some measures, most notably by gradually expanding markets for more efficient products with less per unit environmental impacts. One example, among thousands, is the history of the increasing energy efficiency of new refrigerators since the global phase down of CFCs beginning in the early 1990s.

But, because these advances tend to require or contribute to *more* consumption, and because they tend to do little to influence the drivers of consumption or mitigate the indirect costs of producing, transporting, and disposing of consumer goods, much of the so-called "progress" is incremental, local, or temporary, unable on a global scale to produce enough change to mitigate the damaging environmental consequences of buying and using most consumer products. Sometimes this progress is even causing the costs of consumption to intensify further, with environmental conditions improving in developed countries and deteriorating in developing ones that produce and import more damaging products. This helps to explain why so many global environmental efforts are failing. It also helps to explain why so many involved in the global policy process are overly optimistic about the value of incremental environmentalism, as those with more power and wealth shift many of the costs of consumption to those with less.

International environmental laws to control transboundary pollution are helping a little to mitigate the environmental damage of consumption (e.g., the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the 2001 Stockholm Convention on Persistent Organic Pollutants). So are consumer labels to certify that products are from sustainable sources (e.g., the Forest Stewardship Council and the Marine Stewardship Council). So are corporate policies to increase environmental and social accountability (e.g., Electrolux's policy to audit suppliers in developing countries like China and Brazil to monitor compliance with its corporate code of conduct). And so are incentives for manufacturers to include disposal costs into the price of consumer goods (e.g., the European Commission's End-of-Life Vehicles directive, which requires manufacturers to "de-pollute" and recycle used vehicles with their logo).

Yet the big picture is clear. Even as global environmental governance continues to strengthen incrementally, the "global environment" that is being "governed" is continuing to slide into an ever-greater crisis, creating an ever-more difficult problem to "govern." To be effective on a global scale, far more needs to be done, faster, to reimagine and reorganize an unbalanced global economy, and to shift more of the benefits to the world's poorest people and less of the costs of producing, using, and disposing of consumer goods to the most vulnerable ecosystems. This will require international policy processes to tackle head on the systemic drivers of consumption.

Conclusion: Beyond a Greening of Consumption

Such a conclusion challenges the current thinking among policymakers and business leaders that stresses the importance of greening consumer choices and lifestyles to mitigate the effects of consumption, while sustaining economic growth.¹⁴ This raises many questions about the predictive value of ecological modernization theory as a strand of environmental thought. The gist of this theory, which draws primarily on the histories of Western Europe after World War II, is that appropriate market-based environmental regulations can increase the competitiveness of industry and foster socioeconomic development. The theory assumes it is possible to stimulate green economic growth by creating incentives to promote markets and innovative technologies that increase efficiency, use less energy, deplete fewer resources, and recycle more waste. Governments need as well to develop a policy framework so companies see protecting the environment not as a cost, but as a business opportunity to improve competitiveness and thereby create incentives for firms to go beyond the legal environmental rules in various jurisdictions. The theory predicts a gradual restructuring of global capitalism into a global system of sustainable economic growth. 15

It underestimates significantly, however, the extent of the global problem of consumption, capturing instead a slice of the process of change, especially in the wealthy states of Europe. Promoting green products and sustainable lifestyles is only scratching at the surface of a problematic capitalist world order built on ever-expanding economic growth, consumption, and markets, and efficiencies and profits realized by distancing and externalizing the environmental and social costs of producing, using, and replacing consumer goods.

First called for by the 2002 World Summit on Sustainable Development's Johannesburg Plan of Action, the Marrakech process to develop a 10-year framework of programs for sustainable consumption and production has some potential to address the problem of consumption more effectively. ¹⁶ But this will require going beyond the assumptions, pathways, and measurements of an ecological modernization approach. It will require a questioning of our economic order, income inequality, and a global system sinking a disproportionate amount of the costs of consumption into the world's poorest countries and most vulnerable ecosystems. Thinking incrementally and acting locally, while beneficial, is not enough to prevent the environmental governance of consumption from continuing to fail globally. To return to the rising tide of plastics in the Pacific Ocean, succeeding globally will require far greater change than sim-

^{14.} The World Business Council for Sustainable Development (2008: 5), for example, concludes: "Current global consumption patterns are unsustainable. . . . It is becoming apparent that efficiency gains and technological advances alone will not be sufficient to bring global consumption to a sustainable level; changes will also be required to consumer lifestyles, including the ways in which consumers choose and use products and services" (emphasis added).

^{15.} See Mol 2001, 2002; Mol and Jänicke 2009.

For background on the Marrakech process, see the United Nations website at http://esa.un.org/ marrakechprocess.

ply increasing the number of conscientious consumers refusing plastic bags, recycling plastic bottles, or sleeping contentedly on recycled plastic pillow stuffing.

References

- Ali, Saleem. 2009. *Treasures of the Earth: Need, Greed, and a Sustainable Future.* New Haven, CT: Yale University Press.
- Clapp, Jennifer. 2002. Distancing of Waste: Overconsumption in a Global Economy. In Thomas Princen, Michael Maniates, and Ken Conca, eds. *Confronting Consumption*, 155–176. Cambridge, MA: MIT Press.
- Clapp, Jennifer, and Doris Fuchs. 2009. *Corporate Power in Global Agrifood Governance*. Cambridge, MA: The MIT Press.
- Clapp, Jennifer, and Linda Swanston. 2009. Doing Away with Plastic Shopping Bags: International Patterns of Norm Emergence and Policy Implementation. *Environmental Politics* 18 (3): 315–332.
- Dauvergne, Peter. 1997. Shadows in the Forest: Japan and the Politics of Timber in Southeast Asia. Cambridge, MA: The MIT Press.
- ——. 2008. The Shadows of Consumption: Consequences for the Global Environment. Cambridge, MA: The MIT Press.
- Downie, David Leonard, and Terry Fenge, eds. 2003. Northern Lights against POPs: Combatting Toxic Threats in the Arctic. Montreal, QC: McGill-Queen's University Press.
- Freund, Peter, and George Martin. 1993. *The Ecology of the Automobile.* Montreal, QC: Black Rose Books.
- Fuchs, Doris A., and Sylvia Lorek. 2005. Sustainable Consumption Governance: A History of Promises and Failures. *Journal of Consumer Policy* 28 (3): 261–288.
- Iles, Alastair. 2004. Mapping Environmental Justice in Technology Flows: Computer Waste Impacts in Asia. Global Environmental Politics 4 (4): 76–107.
- International Monetary Fund. 2009. *World Economic Outlook: October 2009*. Washington, DC: World Bank. Available online at: http://www.imf.org/external/pubs/ft/weo/2009/02/pdf/text.pdf.
- Jackson, Tim. 2004. Negotiating Sustainable Consumption: A Review of the Consumption Debate and its Policy Implications. Energy and Environment 15 (6): 1027–1051.
- ——. 2005. Live Better by Consuming Less? Is There a Double 'Double Dividend' in Sustainable Consumption? *Journal of Industrial Ecology* 9 (1–2): 19–36.
- ——. 2008. The Challenge of Sustainable Lifestyles. In 2008 State of the World: Innovations for a Sustainable Economy. New York: Norton.
- Laurance, William. 2008. The Need to Cut China's Illegal Timber Imports. *Science Magazine* 29 (February): 1184–1185.
- Maniates, Michael. 2001. Individualization: Plant a Tree, Buy a Bike, Save the World? *Global Environmental Politics* 1 (3): 31–52.
- Manno, Jack. 2002. Commoditization: Consumption Efficiency and an Economy of Care and Connection. In Thomas Princen, Michael Maniates, and Ken Conca, eds. *Confronting Consumption*, 67–99. Cambridge, MA: MIT Press.
- Mol, Arthur P. J. 2001. Globalization and Environmental Reform: The Ecological Modernization of the Global Economy. Cambridge, MA: The MIT Press.

- ———. 2002. Ecological Modernization and the Global Economy. *Global Environmental Politics* 2 (2): 92–115.
- Mol, Arthur P. J., and Martin Jänicke. 2009. The Origins and Theoretical Foundations of Ecological Modernisation Theory. In Arthur P. J. Mol, David A. Sonnenfeld, and Gert Spaargaren, eds. The Ecological Modernisation Reader: Environmental Reform in Theory and Practice, 17–27. London: Routledge.
- Mont, Oksana, and Andrius Plepys. 2008. Sustainable Consumption Progress: Should We Be Proud Or Alarmed? *Journal of Cleaner Production* 16 (4): 531–537.
- Paterson, Matthew. 2007. Automobile Politics: Ecology and Cultural Political Economy. Cambridge: Cambridge University Press.
- Princen, Thomas. 2005. The Logic of Sufficiency. Cambridge, MA: The MIT Press.
- Princen, Thomas, Michael Maniates, and Ken Conca, eds. 2002. *Confronting Consumption*. Cambridge, MA: The MIT Press.
- Schor, Juliet B. 2004. Born to Buy: The Commercialized Child and the New Consumer Culture. New York: Scribner.
- Vermeir, Iris, and Wim Verbeke. 2006. Sustainable Food Consumption: Exploring Consumer 'Attitude-Behavioral Intention' Gap. *Journal of Agricultural and Environmental Ethics* 19 (2): 169–194.
- Vogel, David. 1995. Trading Up: Consumer and Environmental Regulation in a Global Economy. Cambridge, MA: Harvard University Press.
- Wapner, Paul, and John Willoughby. 2005. The Irony of Environmentalism: The Ecological Futility but Political Necessity of Lifestyle Change. *Ethics and International Affairs* 19 (3): 77–89.
- World Bank. 2006. Global Economic Prospects 2007: Managing the Next Wave of Globalization. Washington, DC: World Bank.
- World Business Council for Sustainable Development. 2008. Sustainable Consumption Facts and Trends: From a Business Perspective. Geneva: World Business Council for Sustainable Development.
- Yago, Glenn. 1984. The Decline of Transit: Urban Transportation in German and U.S. Cities, 1900–1970. Cambridge: Cambridge University Press.