

pollution abatement practices. The more than 1,700 plaintiffs were awarded less than 2 percent of the compensation they requested.

Despite these challenges, however, the courts yield an occasional, important victory for pollution victims and environmental protection. And the expansion of environmental litigation is not without influence on the political system. In some cases judges, lawyers, and activists have used the legal system to push the boundaries of the politically permissible. For example, more than sixty jurisdictions have established environmental courts, some of which have allowed social organizations or the government to sue polluters on behalf of the public. Successful policy innovations or lawsuits have spurred imitation or legitimated new practices such as the increased use of rights language. While experiments such as these have not fundamentally altered the Chinese political or legal systems, or tipped the balance in favor of environmental protection over economic growth, they may plant seeds of change. The bottom line is that, while courts are not the answer to China's environmental problems, the environmental legal system is an important arena of modest innovation and cautious experimentation.

Gareau, Brian J. 2013. *From Precaution to Profit: Contemporary Challenges to Environmental Protection in the Montreal Protocol*. New Haven, CT: Yale University Press.

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This interesting and well-researched book provides in-depth analysis of the ongoing attempt to phase out methyl bromide (MeBr) under the Montreal Protocol. It demonstrates how allowable exemptions, the influence of large and predominantly California-based agricultural businesses, and expanding influence of neo-liberal economic and political paradigms have frustrated efforts to eliminate this toxic and ozone-depleting substance (ODS). Gareau argues that the success of economic interests in significantly delaying the elimination of methyl bromide in the United States and in the ozone regime is a worrisome example of the threat that neoliberalism poses for achieving the ultimate goal of the ozone regime and for effective global environmental politics in general.

The book helps to fill several important gaps in the secondary literature on the ozone regime. MeBr is a powerful ODS used as a pesticide, as a fumigant in shipping containers and to sterilize soil, especially in commercial large-scale monoculture settings. Its uses are different from, and have received far less attention than, other ozone-depleting substances. The exemptions for MeBr are far broader and subject to far less review than for other substances within the Montreal Protocol process. These include a permissive "critical use exemption" for agriculture.

Gareau provides the most detailed treatment to date of the political economy of the MeBr issue and how agricultural lobbyists and their political allies, especially in the United States, have exploited the broader exemptions to keep

using MeBr in relatively large quantities despite the availability of effective but sometimes more costly substitutes. This analysis not only helps us understand the ongoing evolution of global ozone policy but also provides insights regarding how to structure exemptions in international environmental treaties.

From Precaution to Profit also provides detailed discussions of other important but understudied aspects of the ozone regime, including the domestic debates that produced the US' negotiating positions in the 1990s and 2000s; attempts by global civil society groups to influence policy in the US and EU; and the often-important roles of technical committees within the ozone regime in framing policy debates. As a sociologist, Gareau brings a different theoretical lens than most who have examined global environmental politics. Also, the book provides a useful counterpoint to the uniformly positive evaluations of the ozone regime. It is a valuable addition to the literature.

The only potential issue is whether the book would benefit from a better understanding of the history of the ozone regime and global environmental politics in general. Gareau argues that the ability of economic interests to exploit the MeBr exemptions shows that the ozone regime is less effective now than in the past, and that it has moved from an emphasis on precaution to one on profit. He views this shift as evidence of increasing acceptance of neoliberal ideology, which threatens the ability of international actors to effectively manage global problems and explains why the early ozone regime was more environmentally focused and effective than it has become or than the climate regime is now.

These observations have elements of truth, but they are sometimes presented in what some might regard as an exaggerated fashion. Economic interests have always compromised protection of the ozone layer, and there is really no difference between how and why they do so now than they did in the past. European states essentially refused to discuss the possibility of coordinating domestic controls of chlorofluorocarbons (CFCs) at the first international meetings on the issue in the late 1970s. Europe (supported by Japan and Russia) prevented the 1985 Vienna Convention from including any control measures, rejecting arguments for taking precautionary action and stating that the lack of scientific certainty did not warrant the cost to their domestic industries.¹ The heralded 50-percent cuts in the "precautionary" 1987 Montreal Protocol actually required only modest adjustment costs by the EU and Japan industries, as their governments could meet much of the requirement through controls on CFC-aerosol sprays and other low hanging fruit.² The 1990 agreements in London to eliminate all CFCs, while extraordinary, occurred after most major manufacturers announced they could substitute other chemicals. In the 1990s and early 2000s, Australia, China, the US, and others stated they could not support European arguments that a precautionary approach required accelerating the

1. Benedick 1998.

2. Downie 1996.

HCFC phaseout, in part because the proposed measures would be too expensive given the amount of environmental protection they would produce.

In each case, countries pursued policies that favored particular domestic economic interests. The fact that this practice continues with MeBr exemptions is not surprising, not a break from the past, and probably not indicative of some larger issue or theoretical development. Some actors have always, and some actors likely will always, put private economic or other interests ahead of common environmental interests. We should not be surprised to find politics going on in the ozone regime.

The potential exploitation of critical use exemptions (CUEs) was foreseen when they were created. CUEs were designed by their backers to be easy to use. Gareau's book contains too little discussion of the origins of the exemptions, details that would have informed the overall discussion. CUEs were allowed for MeBr, in part because exemptions had already been allowed for CFCs and halons. In the end, the EU and others decided that CUEs were an acceptable price to pay for an agreement by the US, Kenya, and other countries to cut and eventually phase out MeBr. Was that compromise a mistake? Perhaps, perhaps not, but exemptions are a key tool in overcoming the lowest common denominator problem.³ In any event, one can easily argue that the origins and design of the CUEs, which intentionally limited the ability of the treaty's governing processes to reduce them without agreement by the country using them (despite the impression given by some people interviewed for the book), is an equally plausible explanation of why MeBr use continues under the ozone regime.

One does not need to believe that precaution has been rejected or that the ozone regime has broken down to understand why actors continue to pursue CUEs and other exemptions—or why some developing countries might opt out of the final HCFC phaseout. Indeed, the success of the regime in slowing the pace of ozone depletion allows these actors to argue that the economic benefits of the MeBr exemptions outweigh the environmental costs. This argument is the same that some European countries made about CFCs in the 1970s and 1980s and that the US and others made regarding HCFCs for most of the 2000s.

Finally, the book sometimes overstates the importance of MeBr CUEs on the ultimate success or failure of the ozone regime. MeBr emissions have declined dramatically since 1995 and the amount of MeBr used via CUEs has declined significantly as well.⁴ Indeed, the agreement to phase-out MeBr but allow CUEs, even with all the shenanigans that Gareau correctly details, has likely produced a greater reduction in MeBr production and use than would have occurred with a longer phase-out schedule and no allowance for CUEs. The millions of tons of CFCs, HCFCs, and halons leaking from foams and equipment no longer in use comprise the largest current source of ODS-weighted

3. Chasek et al. 2014.

4. United Nations 2013.

emissions of ozone-depleting substances,⁵ and their potential impact on the ozone layer dwarfs that of MeBr. MeBr CUEs, and their quarantine and pre-shipment uses constitute important ODS emissions, but it is extremely unlikely they will decide the fate of the ozone layer.

The ozone regime has been remarkably successful. It is far from perfect, however, and humankind cannot yet be certain it has saved stratospheric ozone from serious deterioration. *From Precaution to Profit* does an excellent job of reminding us of this uncertainty by revealing important elements of the political economy of MeBr. It is an important story, and this is an excellent book. But we should be careful about trying to build complex theoretical arguments when simple and durable explanations are available.

References

- Benedick, Richard. 1998. *Ozone Diplomacy*, 2nd ed. Cambridge, MA: Harvard University.
- Chasek, Pamela S., David Downie, and Janet Welsh Brown. 2014. *Global Environmental Politics*, 6th ed. Boulder, CO: Westview Press.
- Downie, David. 1996. *Understanding International Environmental Regimes: The Origin, Creation and Expansion of the Ozone Regime*. Ph.D. dissertation. Chapel Hill: University of North Carolina.
- United Nations 2013. Report of the Twenty-Fifth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. Bangkok, October 21–25, a2013. United Nations Document, UNEP/OzL.Pro.25/9.
- WMO, UNEP, NOAA, NASA, and European Commission Directorate-General for Research. 2011. *Scientific Assessment of Stratospheric Ozone: 2010*. Geneva: World Meteorological Organization.
- Green, Jessica F. 2014. *Rethinking Private Authority: Agents and Entrepreneurs in Global Environmental Governance*. Princeton: Princeton University Press.

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Sometimes referred to as “private authority,” governance by nonstate actors has attracted considerable scholarly interest in recent years. Focusing on environmental governance in general and climate governance in particular, *Rethinking Private Authority* has an ambitious point of departure, asking when and why private actors perform regulatory roles in global environmental politics.

Jessica Green defines private authority as “situations in which nonstate actors make rules or set standards that other relevant actors in world politics adopt” (p. 29). She “disaggregates” the concept into “delegated authority,” which is equivalent to a traditional principal–agent relationship, and “entrepreneurial authority,” which is similar to the traditional understanding in the literature of private authority as governance without government.

5. WMO et al. 2011.