Neoliberal Knowledge: The Decline of Technocracy and the Weakening of the Montreal Protocol*

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**Objective.** The turn to participatory, stakeholder modes of governance has been accompanied by the legitimization of a new “particularist knowledge regime” emphasizing the knowledge claims made by private interests and local voices. It has also tended to de-legitimize the ways of knowing that had characterized central state governance, namely, state expertise based on general welfare analytics such as cost-benefit analysis. This turn away from state expertise, what we call the “anti-technocratic consensus,” while stemming from democratic motivations, may actually make environmental governance less democratic. **Method.** We examine the problems that arise from the abandonment of general welfare economic analytics and technical expertise—the anti-technocratic consensus—through a specific case study: the recent handling of “critical use exemptions” to the ban on methyl bromide under the Montreal Protocol, a treaty that mandates the elimination of methyl bromide in order to protect the ozone layer. We show that decisionmakers specifically rejected general welfare analytics as a basis of regulatory action in favor of a particularist form of analytics based on measuring market disruption. **Results.** This case illustrate how the de-legitimization of technical expertise can weaken the effectiveness of an environmental agreement in meeting its regulatory mandate. Critics have often criticized technical expertise as supporting the economic status quo. However, in the case of methyl bromide and the Montreal Protocol, technical experts using general welfare analytics represented a challenge to U.S. regulatory officials who supported industrial interests and their request for significant exemptions to the ban. **Conclusion.** The legitimization of a particularist knowledge regime opens up policy making to domination by private interests playing the stakeholder game. Stakeholder input and particularist knowledges are important to

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democratic decision making. However, technical expertise, despite all its weaknesses, is a form of knowledge that remains necessary to the protection of the environment and public health.

Contemporary studies of neoliberal governance describe a fundamental change in how members of advanced economies answer the question: “How do we govern ourselves?” The answer no longer entails reliance on centralized state institutions, nor a “faith in rationality” (Beneviste, 1977), and the technocratic, central state government institutions that claimed to govern based on rational criteria. Instead, we now live in an era of “neoliberal governance” in which political actors have abandoned the idea of central state decision making and instead rely on market processes, individual self-sufficiency and responsibility, devolution of decision making down to local scales, and the concomitant “hollowing out” of the nation-state (Dean, 1999; Jessop, 2002; Peck and Tickell, 2002). As we will show, this change in the form of political decision making parallels a fundamental change in how we answer another question: “What counts for legitimate knowledge in our public decisions?” Interest in the turn to neoliberal governance, we argue, is firmly based in an “anti-technocratic consensus”: a rejection, all along the political spectrum, of the rational analytics of technical expertise that is rooted in the theories of welfare economics. Under this neoliberal “knowledge regime,” policy decisions are increasingly based in knowledge measuring the particular impacts of a decision, “particularist knowledge” as presented by separate stakeholder groups.

The concept of a “knowledge regime” is based on the idea that conceptual networks—“how we think and why we are obliged to think in certain ways” (Hacking, 1990:362; Somers, 1995)—are intertwined with “configurations and coordinates of ideas, epistemological rules of validity [and] cultural logics” (Somers, 1995:235). Particular forms of politics have their own rules of epistemological validity—what gets to count as true and legitimate knowledge. The anti-technocratic consensus, we will show, is a shared conceptual network that spans the left-right political spectrum. It has changed the way we describe our political choices, abandoning universalist and common-good concepts for more particular, subjective forms of knowledge.

On the progressive side of the spectrum, the rise of critical policy analysis and the “argumentative turn” (Fischer and Forester, 1993) emerged from a criticism of formal, positivist approaches in favor of more deliberative, interpretive, and subjective forms of knowing. Critical policy analysts condemned in particular the analytics of welfare economics, particularly cost-benefit analysis, as “the attempt to put a price on everything” (Shipman, 1999:62) and instead heralded more devolved and participatory forms of policy knowledge that did not rely on technocratic expertise. Critical policy analysis, “with its assumptions about the inherently contextual nature of knowledge,” is “more consistent with the contemporary situation in developed democracies of dispersed power, diminishing trust, ambiguous
institutions, powerful transnational influences and increasing reflexivity” (Hajer, 2003:xiv). Rather than rational analysis based on technocratic analytics and state expertise, critical policy analysts recommend participatory decision-making processes that rely on knowledge provided by interest group “stakeholders” in participatory decision-making processes (Forester, 1999). This turn away from state expertise therefore de-emphasizes Enlightenment notions of rational positivist calculation in favor of a more free-form process of stakeholder fact finding that takes seriously more subjective and local forms of knowledge (Fischer, 1990; Brown and Mikkelsen, 1997).

Conservative assaults on the state have also questioned the role (and costs) of government, beginning in the Reagan era, continuing with the conservative regulatory reform movement exemplified in The Contract with America, and coming to full force during the G. W. Bush Administration. Ironically, The Contract with America, an early 1990s regulatory reform political agenda, was more of a hybrid approach, depending on technocratic tools such as cost-benefit analysis to increase government efficiency (a kind of technocracy against the technocrats). However, the 2000 Bush victory brought a new right-wing group, the radical small government conservatives, to the fore (Kettl, 2005:32–33), “arguing that private agents would do the job better if [government] intervened less” (Shipman, 1999:62–63). The rise of radical small government conservatives therefore represented a new kind of conservativism that went beyond The Contract with America approach. Together, small government and local knowledge advocates nailed closed the coffin of technocratic expertise as a form of legitimate policy knowledge. Despite the polarized left-right rhetoric of this era, the consensus around the dangers of technocracy allowed the conservative politics of “free market” and smaller government to mesh with the progressive move toward more participatory and local stakeholder forms of governance.

We do not deny the problems of technocracy and government waste, or the necessity and importance of “contextualized knowledge” and the “deliberative turn” (Fischer and Forester, 1993), but we question the sole reliance on either markets or deliberative, local stakeholder knowledge to move society toward greater democracy and equality. Instead, we will show that the turn to particularist analytics is deleterious to democratic processes, as much or more so than governance that relies entirely on technocratic expertise. We argue that the abandonment of state expertise and rational policy analytics is a mistake; while deliberative forms of democracy are essential, a democracy that fully abandons rational-universalist analytics and the general welfare perspective of the common good will lead to less democratic decision making, not more. Technocratic knowledge production, the case study will show, can provide a countervailing force to the problems that arise from a wholesale reliance on neoliberal particularist analytics.

To illustrate the potential deleterious effects of the neoliberal knowledge regime, we look at one particular case: the current critical use exemptions (CUEs) debate between the parties to the Montreal Protocol on Substances
that Deplete the Ozone Layer (the Montreal Protocol). The politics of methyl bromide (MeBr) “Critical Use Exemptions” (CUEs) shows how the rejection of more rational-universal general welfare policy analyses in favor of contextual, particularist forms of knowledge has led to a weakening of the Montreal Protocol, an international treaty that had previously been hailed as a successful solution to the problem of ozone depletion (Benedick, 1998). We will show how a redefinition of qualified exemptions to the ban has severely weakened the ability of the protocol to remain an effective global environmental treaty. Ironically, as we will show, technocratic analytics have recently provided the only serious challenge to the weakening of the treaty.

The Shift from Technocratic to Particularist Analytics

The use of rational calculation to influence state decisions goes back as far as the mercantilist period (Schmoller, 1884, in Perlman and McCann, 1998). However, the U.S. Flood Control Act of 1936 represented the first federally mandated use of the most widely used form of technocratic analytics, cost-benefit analysis, to determine policy decisions (Eckstein, 1958). Technocratic analytics draw on the theories of Vilfredo Pareto, who demonstrated that economic efficiency is empirically calculable through an analysis of the allocation of resources. The most economically efficient scenario is one in which everyone is better off and no one is worse off, compared to alternative allocations. Economic theorists Kaldor and Hicks showed that efficient “best” scenarios could involve some losers, if the decision involved an overall increase in the common, public good, in which the winners could (although not necessarily did) compensate the losers. General welfare theory, therefore, was based on the idea that to increase the public good, some people might be negatively affected. Economists then relegated the question of actual compensation to distribution decisions that were separate from technocratic theories of efficiency.

These theories formed the empirical foundation for technocratic rule, with cost-benefit analysis as its central tool. In simple terms, cost-benefit analysis calculates the effects on general welfare of a particular decision by comparing the costs of a particular action to the benefits that accrue from that action. Cost-benefit analysis is based on the utilitarian theories of welfare economics, which assumes that all individuals act primarily on the basis of their own self-interest (or “utility”) and that making decisions based on that premise will maximize efficiency and therefore increase social wealth, or “welfare.” Cost-benefit analysis therefore measures the utility gained versus the utility lost due to a particular decision as a way to measure the total effects on social welfare. Proponents of general welfare analytics argue that these tools enable state administrators to determine what policies they should pursue to maximize the benefit to society as a whole (Hahn, 2000). The technocratic knowledge regime became part of a postwar consensus
that was biased in favor of government intervention because it took account of market failure (caused by public goods, externalities, imperfections of competition, limited information, myopia, and so on). Governments were assumed to be concerned to maximize social welfare and to have the information they needed to achieve this” (Backhouse, 2005:357–58). This form of governance still has its supporters, especially by economists in both academia and private think tanks (particularly the Brookings Institution), who continue to advocate for more use of their discipline in government decision making (Hahn, 2000; Hahn, Olmstead, and Stavins, 2003).

In the 1970s, however, economists concerned that government spending was contributing to rising inflation during the Ford Administration began to advocate the use of cost-benefit analysis to evaluate the regulatory burdens of government itself.¹ In succeeding administrations, the addition of cost-benefit analysis mandates to new or existing regulations became part of an overall political interest in regulatory reform, culminating with the 103rd Congress and the Republican Contract with America, a “detailed agenda for national renewal” (Brookings Institution, 1995) issued during the 1994 congressional election campaign. The Contract with America’s “Job Creation and Wage Enhancement Act” included HR 9, a bill passed by the House on March 1, 1995. HR 9 mandated that any federal regulation with an impact over $50 million annually must undergo a cost-benefit analysis that would require signoff by the Office of Management and Budget. The bill passed overwhelmingly, 415–14. Yet, the Senate did not act on HR 9 (Shierow, 1999). In fact, no “omnibus” cost-benefit analysis legislation has ever passed both houses.

After the failure of HR 9, Congress abandoned omnibus cost-benefit legislation (Hahn, 2000), despite Republican majorities in several subsequent Congresses. Kraft (2003) attributes the decline of omnibus regulatory reform legislation to the election of George W. Bush, after which “the regulatory reform agenda shifted from imposing congressional mandates on Clinton Administration agencies to direct intervention in those agencies by the Bush White House” (2003:139).

Economic analysis did not disappear from government activities, however. It took on a different role as a form of monitoring the efficiency of state agencies in a ratings-based monitoring system much like the “No Child Left Behind” rating system for public education (Kettl, 2005). For example, the White House Office of Information and Regulatory Affairs (OIRA) is the major administration advocate for cost-benefit analysis, part of the Executive Office of Management and Budget. Clinton’s Executive Order 12866 (1993) gave this office the mandate to oversee the overall costs and benefits of all new regulations annually. Yet, under the Bush Administration, the OIRA has been more in the public choice critical mode of controlling bureaucratic spending through executive branch monitoring rather than

¹White House webpage.
through encouraging competent decision making (Kettl, 2005). Shapiro (2005:10434), for example, argues that “OIRA’s role as the eyes and ears of the president in overseeing regulatory agencies has led to its analytical mission playing a secondary role.” With little fanfare and very little comment, cost-benefit rhetoric as a way to make government better simply disappeared from the conservative policy-making agenda. As the Cato Institute put it: “Efficient market structures cannot be ascertained a priori by legislators or bureaucrats; only by letting markets spontaneously develop can we know the “best” industrial arrangements” (Cato Institute, 1997). When markets know best, rational decision-making analytics are no longer necessary.

The conservative change of heart has been mostly behind the scenes; however, a more vocal and public condemnation of rational economic analytics has come from progressive students of social change. Part of a broader critique of state expertise, these analysts have been critical of the extent to which general welfare economics democratically represents “the public” (Fisher and Forester, 1993; Fisher, 1990; Sagoff, 1988; Beneviste, 1977). Critics have repeatedly shown that government experts often use economic analysis in ways that are less than politically neutral and democratic (e.g., Bardach and Kagan, 1982). Liberal policy analysts concerned about the need for greater health and environmental protections have been particularly critical of cost-benefit analysis and the central-state technocratic politics of expertise that denied claims made by grassroots and citizen groups about the negative effects of toxic exposure and pollution (Ackerman and Heinzerling, 2004). Based on this critique, many environmental organizations worked assiduously against The Contract with America, “convinced that benefit-cost analysis was inappropriate and prejudicial to environmental regulation” (Rosenbaum, 1995:225).2 These critiques parallel similarly critical studies of scientists and scientific data in public policy controversies, showing that this type of knowledge production often hides political interests behind universalist forms of knowledge (Stauber and Rampton, 1995; Dickson, 1988), and that even “fair” analyses are based on rational assumptions that ignore important voices and unmeasurable issues (Ackerman and Heinzerling, 2004; Sagoff, 1988).

Critiques of policy based on universalist forms of knowledge production have called for more deliberative forms of policy making and for more collaborative forms of knowledge production, such as a “democracy of technology” (Selove, 1995), “popular epidemiology” (Brown and Mikkel- sen, 1997), “deliberative policy analysis” (Fisher and Forester, 1993), “reflexive politics” (DuPuis et al., 2006), and “civic science” (Jasanoff, 1990). Advocates claim that this more participatory form of knowledge production will lead to more democratic decision making and more egalitarian approaches to policy (cf. Backstrand, 2003).

2Environmental groups have been split about the turn to market-based regulation (National Academy of Public Administration, 1994).
The critique of technocratic and rational analysis and the turn to particularist analytics was therefore remarkably consistent with both liberal deliberative and conservative market-based policy agendas. Bureaucracy as a form of social policy making became increasingly "ridiculed, parodied and subject to criticism on the grounds of its pedantry, obsession with rule-following, dedication to the preservation of itself rather than to its practical outcomes for those who are dependent on it, its denial of democracy and much more" (Rose, 1999:148).

Progressive critics of technocracy recommended a turn to participatory-stakeholder approaches, through "popular epidemiology" and other forms of de-centralized knowledge production (Brown and Mikkelsen, 1997; Kroll-Smith and Floyd, 2000). Yet, this form of policy practice has no strict guidelines by which to ascertain the legitimacy of the democratic process; there are no checks and balances in place to determine when public participation processes are legitimate and accountable.

In tandem with these public critiques came a reexamination of the theoretical models on which technocratic analytics depend. Most prominent in this change was a rediscovery of Hayek’s economic theories about the superiority of "spontaneous order" over central planning as a way to organize society. The concomitant rise of public choice economics illuminated the ways policy was "driven by the interests of those responsible for implementing it. Government failure was as pervasive as market failure. The very possibility of government regulation would lead to rent seeking—using lobbying and other activities designed to achieve better treatment—diverting resources away from productive activities" (Backhouse, 2005:359). In addition, social choice theorists, especially Ronald Coase and Kenneth Arrow, undermined the basic precepts of welfare economics. Coase’s theoretical models problematized the role of state intervention in the efficient allocation of resources by demonstrating that private parties could resolve issues of efficiency through the market, without government intervention. Arrow (1963) demonstrated theoretically that the idea of measuring the general welfare through the aggregation of individual utilities was logically impossible. These ideas informed the Chicago School of economics and formed the inspirational foundation for small government radical ideologues among whom "regulation was increasingly seen as creating perverse incentives and distorting resource allocation as much as curing such problems. Efficiency required private ownership of assets and available markets to establish competitive prices for goods and services" (Backhouse, 2005:359). These new theorizations in particular gave credence to the idea that privatization leads to more efficient use of resources, including privatizing rights to the air through air pollution trading (Teitenberg, 1985; DuPuis, 2004).

The more conservative think tanks responded to the public choice critique by tempering their support of cost-benefit and other forms of economic analysis. For example, Cato Institute regulatory reform analyst William Niskanen has noted that he once "sang with the choir" on the need for
cost-benefit analysis in regulatory decision making: “Over time, however, I have come to believe that those standards are sometimes misleading and are seldom a sufficient screen against bad regulation” (Cato Institute, 1997).

It is therefore not surprising, then, that by the late 1990s, legislative proposals based on cost-benefit analysis waned at both the national and state levels, despite continued support by a number of vocal economists. Talk of greater rationality in environmental policy decision making was replaced with a more devolved and market-based model that conformed more to neoliberal notions of competition, deregulation, private interest, rollback, and market-based approaches to formulating policy while also speaking more to civic notions of participatory democracy (Peck and Tickell, 2002; Rose, 2004; Dean, 1999).

In the next section, we show how the decline of technocracy has affected the phaseout of methyl bromide (MeBr) in the Montreal Protocol. Some have argued that the extension of MeBr use beyond the ban is simply a sign of crony capitalism and the power of the U.S. empire (Krugman 2003). Our argument is somewhat different, showing that the anti-technocratic consensus has united all sides of the political spectrum on the status of legitimate knowledge—specifically, that knowledge is private and not public, particular and not universal—which leaves little room for the use of general welfare analytics or technocratic expertise. This gap in the legitimization of public analytics means that the notion of “the public interest” has disappeared both politically and epistemologically from public decision making, leaving the serious global health consequences of MeBr out of the analytical picture.

Case Study: Critical Use Exemptions and the Montreal Protocol

The Montreal Protocol is a global environmental treaty that commits all signatories to strict schedules for the decline in the use of ozone-depleting chemicals, including chlorofluorocarbons (CFCs) and methyl bromide (MeBr). The treaty was first signed by parties (including the United States) in 1987. Since then, a total of 191 nations have signed the protocol, which commits them to schedules for eliminating ODSs in order “to protect human health and the environment against adverse effects likely to result from human activities which modify or are likely to modify the ozone layer” (Preamble to the Montreal Protocol). Based on scientific studies, the treaty designated certain substances as ozone-depleting substances (ODS) to be phased out and banned. The CFC phase-out schedule aimed at a complete ban by 1996 and the MeBr phase-out schedule called for a ban by 2005. The successful phase out of CFCs under the treaty by the 1996 ban date prompted analysts to declare the Montreal Protocol to be the most successful global environmental regulatory treaty in existence (Benedick, 1998).
However, the current phaseout of MeBr has been greatly delayed, with a stalled reduction in use, prompting significant criticism from environmental advocates (EIA, 2006; NRDC, 2004). Although the issues surrounding MeBr and its actual impact on ozone-depletion chemistry are more complicated than the case of CFCs (Parson, 2003), advocates of MeBr use extensions have emphasized these differences to the point of not admitting any MeBr impact on ozone depletion whatsoever.

However, the most important factor in the maintenance of MeBr use has been the difference in the policies that allow for exemptions to the ban. Because a few publicly important uses of CFCs were not readily replaceable by alternatives, the treaty provided for exemptions for these particular uses. At the 1992 meeting in Copenhagen, the Montreal Protocol created the category of “essential uses” of CFCs deemed to meet four criteria.

1. It is necessary for the health and safety, or is critical for the functioning, of society (encompassing cultural and intellectual aspects).
2. There are no available technical and economically feasible alternatives or substitutes that are acceptable from the standpoint of environment and health.
3. Steps have been taken to minimize emissions.
4. ODSs of sufficient quantity and quality are not available from existing stocks (EPA, 2006).

Based on these criteria, three essential uses were exempted from the CFC ban: (1) CFCs used as propellants in metered-dose inhalers (MDIs) for treatment of asthma and some pulmonary diseases; (2) methyl chloroform for certain applications on the U.S. space shuttle; and (3) CFCs “essential [for] laboratory and analytical uses” (EPA, 2006). Analysts justified these exemptions by showing that the social welfare and public benefits of these particular uses of these substances outweighed their environmental costs to society.

In 1992, the parties to the Montreal Protocol added MeBr to the list of ODSs and set a schedule of its phaseout. In 2003, however, as the ban on MeBr was about to go into effect, the United States strongly advocated the heavy use of an exemption clause (Decision IX/6) worked out during the 1997 meeting of the parties in Montreal. This enabled states to change the criteria for exemptions as it applied to MeBr from “essential” to “critical” use, a significant change in definition:

(a) That a use of MeBr should qualify as “critical” only if the nominating Party determines that: (i) The specific use is critical because the lack of availability of MeBr for that use would result in a significant market disruption; and (ii) There are no technically and economically feasible alternatives or substitutes available to the user that are acceptable from the standpoint of environment and health and are suitable to the crops and
In effect, the parties eliminated the general weighing of costs and benefits to society in favor of exemptions based on the “market disruption” impact on specific interest groups.

This shift from essential to critical use exemptions occurred in the context of a large-scale turn to stakeholder participation in regulatory governance processes. The IIED publication *Environment and Urbanization* put out a special issue on participatory governance in 2004, with a justification that stated: “Much has been made possible by more democratic and decentralized government structures, and by bottom-up pressures and coherent alternative development approaches from citizens and civil society organizations” (2004:1). Following in the steps of the United Nations’ economic consortia, the UNEP has moved toward participatory governance and market competitiveness to achieve results, involving greater participation by nongovernmental experts and civil society groups (Bankobeza, 2005).

In the United States, the regulation of MeBr was facing strong pressure from the U.S. Department of Agriculture and agricultural producers who claimed that the MeBr phaseout would put U.S. growers at an economic disadvantage compared to international competitors (Parson, 2003:218). The move away from essential to critical use exemptions opened the door to using the protocol as a form of industry protection. As a result, most of the MeBr CUEs that have been granted simply maintain the economic stability of a relatively small number of people in a relatively minor agricultural industry, namely, 600–800 strawberry and tomato producers in a few small U.S. growing regions in California and Florida (Gareau, 2008a).

Environmental and global health nongovernmental organizations have condemned the continued use of MeBr at various meetings of the parties where CUEs were under consideration. Greenpeace, for example, stated at the 2005 Extraordinary Meeting of the Parties to the Montreal Protocol:

The ozone layer is now in its most vulnerable phase, and we know from our scientists that we may well be in for some more nasty surprises, such as the ozone hole over central Europe this past week . . . We urge the parties to be mindful of the fact that the 13,466 metric tones recommended for CUEs for 2006 represents over 130,000 tons of more ODP tons being produced in the world. (2nd ExMop 2005, fieldnotes)

Critics condemn the extensions by citing the scientific research on the significant global health impacts of ozone-layer depletion, including sunburn, skin cancer, snowblindness, and eye cataracts, environmental impacts such as stunted plant growth and deformation and mortality of aquatic organisms, and economic impacts including degradation of wood materials, plastics, rubber, and paint (see van der Leun, 2004; van der Leun and
Weelden, 1975). Yet, such interventions have yet to visibly shape MeBr policy. Instead, in the granting of exemptions, market disruptions for strawberry and tomato farmers has received greater attention than the loss of global health and environmental security (Gareau, 2008b). Technocratic analytics such as cost-benefit analysis have been largely missing from the discussion, with very little discussion of the ban’s global health, environment, and economic benefits compared to the specific industry cost impacts of the ban. Instead, only the industry cost impacts are considered in the discussion of the extensions.

This does not mean that other countries have remained silent on the issue, although much of the discussion has involved trade effects. At the 2004 First Extraordinary Meeting of the Parties to the Montreal Protocol, the Japanese delegation noted the mixed message that the U.S. exemptions sent to other farmers in the industrialized world. Japan stated: “CUEs must be kept to an absolute minimum. Japanese farmers . . . under the guidance of the government, have lower nominations [for MeBr use]. We still believe [the U.S. request for higher use of MeBr] is misleading to our farmers.” The Montreal Protocol provided less industrialized “Article 5” countries a longer time period for compliance with the ban, until 2015. However, Article 5 countries must restrict their use of MeBr to their 1995–1998 consumption. Since many of these countries were still in the process of establishing an industrial agriculture base in the 1990s, their consumption ceilings now hamper their ability to compete in high-value agricultural crops dependent on MeBr, such as strawberries and tomatoes. Comments from the less industrialized countries have therefore reflected the anxiety that the CUEs are a form of agricultural trade protectionism for industrialized countries, particularly the United States. As the Dominican Republic stated: “It seems to us as though the very concept of CUE is one way of extending a certain period of domination” (23rd OEWG 2003, fieldnotes). The Chinese delegation stated:

In the past few years, some [nonindustrialized] countries already started the process of phase-out of MeBr. Some of them are even completed! [Industrialized] countries, they consume a lot, some consume up to 16,000 tonnes in CUEs. I think that may give rise to some unfair practices in terms of trade! (23rd OEWG, 2003)

As a result, the developing countries have begun to hold back on their commitment to the MeBr phaseout. For example, the European Union has put forth “conference room papers” to aid Article 5 countries to systematically prepare for their upcoming phaseout of MeBr in 2015. In response

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3In southern Chile, skin cancer rates have escalated 66 percent since 1994; in the United States, the odds of contracting melanoma increased from 1:250 to 1:84 over the last quarter-century; eye cataracts are expected to increase 0.5 percent for every 1 percent of ozone layer loss; the yields of certain crops will decrease 1 percent for every percent increase in UV exposure; new evidence strongly suggests that immune systems of humans and other species will be severely damaged from the extra UV exposure (Flannery 2005:218–19).
to the U.S. exemptions, developing countries are currently refusing to consider such proposals in deliberations (2004 Extraordinary Meeting of the Parties, Montreal, fieldnotes).

The MeBr CUE case illustrates that under the present policy knowledge regime, somewhere around 600–800 farmers and fewer than five agro-chemical companies can represent their interests in the international neoliberal regulatory arena to the point of threatening the continued existence of an international environmental treaty that was designed to protect the world from the significant and global health impacts of ozone depletion (Gareau, 2008a). The only resistance to this knowledge regime has come from economists using technocratic analysis to challenge the current CUE policies.

Challenging CUEs: Welfare Economics Against the State

In 2003, the Montreal Protocol signatories requested that the protocol’s science and technology experts provide parties with an economic assessment of the MeBr phaseout. Economists DeCanio and Norman (2005) performed an assessment of the economic rationality of CUEs by coming up with a general welfare measure of the economic feasibility of MeBr reductions for the protocol’s Technology and Economic Assessment Panel (TEAP). DeCanio was at the time co-chair of the protocol’s Agricultural Economics Task Force (AETF). This analysis was therefore part of the 2003 CUE deliberation process. What parties did not anticipate was that the assessment would present a serious critique of the movement toward CUEs.

The AETF analysis is not specifically a cost-benefit analysis in that it does not attempt to directly evaluate the total costs and benefits of CUEs. Instead, the authors looked at the Multilateral Fund, which is an integral component of the protocol’s work on finding feasible alternatives to ozone-depleting substances. This fund, backed mainly by the industrialized signatories to the protocol, enables nonindustrialized countries to work toward eliminating ozone-depleting substances like MeBr from particular applications. The economists used data on the costs of the projects to estimate the median project reduction costs per ozone-depleting ton and used this cost as a proxy for the global “willingness to pay” for ozone-depleting chemical reduction. They compared this cost to the cost of the alternatives to MeBr reported in the data provided by industries requesting CUEs. Their conclusions were that “many of the MeBr replacement projects described in the [nominations for CUEs] actually are ‘economically feasible’ using the global willingness-to-pay yardstick” (DeCanio and Norman, 2005:387). In other words, DeCanio and Norman showed that many of the CUEs were in fact not economically efficient from a general welfare standpoint.

At the 23rd Open-Ended Working Group (23rd OEWG), DeCanio presented these findings. The report was designed to help the Methyl
Bromide Technical Options Committee (MBTOC) decide whether nominations should be granted exemption status. In response to the report, the AETF determined that most requests for CUEs to MeBr were not viable. As DeCanio stated to the plenary:

In defining economic feasibility, it is useful first to consider what that concept cannot mean. It cannot mean no change in agricultural or fumigation practices. Nor can it mean no increase in the cost of production or product prices. Similarly, it can’t mean no change unless profitability increases. If it meant any of these things, there’d be no need for the Protocol at all. (AETF Presentation at the 2003 23rd Open-Ended Working Group, tape-recorded notes)

DeCanio made a further argument about the global welfare effects of the AETF assessment, arguing that “CUEs may lead to requests for exemptions for the same uses in [nonindustrialized countries], and thereby dilute the effectiveness of the MeBr control in the [nonindustrialized countries]. . . . liberal granting of CUEs will have the effect of protecting MeBr suppliers and customers” (AETF Presentation at the 2003 23rd Open-Ended Working Group, tape-recorded notes).

The response from the plenary to DeCanio’s presentation was extremely negative, particularly by the U.S. representatives. These representatives specifically stated that they could not accept an assessment using general welfare analytics when the parties decided that decisions were based on the impacts on particular users. At a small-group session devoted to the AETF report, U.S. delegate Paul Horowitz stated:

[I]t seems to me that you must not have read the decision of the Parties, which says that the financial aspects, like the economic aspects and the technical aspects, need to take into account the circumstances of the individual user in each nomination. . . . The decision very clearly states that it is supposed to take account the individual situation of the nominating user. (Horowitz speaking at the small-group session devoted to the AETF report at the 2003 23rd OEWG, tape-recorded notes)

The United States strongly questioned the AETF’s methods of determining the economic feasibility of alternatives to MeBr. Yet, the issue here was not how the general welfare analysis had been carried out, but, as Horowitz’s statement makes clear, to deny any role for general welfare analysis in the discussion of CUEs. Horowitz stated that general welfare improvements are not as important as reinforcing the economic conditions of current agro-industrial systems, and those of particular users.

You are looking at the issue through an economic prism . . . But in general governmental policies aren’t determined solely through an economic prism. . . . The parties have always recognized that the circumstances of the individual farmers and users [of MeBr] must be taken into account in the context of the country in which they operate, and the particular economic system in which they operate. The proposal that you made is so far outside
of the political reality that we’ve negotiated and that is being carried out in the Multilateral Fund context that we believe it to be unusable in the context of critical uses. (Horowitz speaking at the small-group session devoted to the AETF report at the 2003 23rd OEWG, tape-recorded notes)

The United States therefore recommended that the AETF report be considered a “learning process” (2003 23rd OEWG, 2003, fieldnotes). In addition, the AETF was dissolved after the 23rd OEWG meeting.

In its place, decisions about the granting of CUEs have relied entirely on the “market disruption” valuation performed by the agricultural economists and scientists at UC-Davis (Goodhue, Fennimore, and Ajwa, 2005) and funded by the California Strawberry Commission (although peer reviewed, as was DeCanio and Norman’s analysis). The Davis analysts presented economic data showing the extent to which the U.S. strawberry industry would experience a market disruption due to the elimination or reduction of MeBr availability. This would make a significant portion of the California strawberry industry economically unviable. No attempt was made to measure the concomitant benefits of the ban, since that was not part of the analytic criteria. In fact, the funders of the study, the California Strawberry Commission, significantly downplay the health and environmental benefits of the MeBr ban (http://www.calstrawberry.com/research/mbromide.asp). By emphasizing the economic impacts and denying the benefits of the Montreal Protocol, these private actors influenced public decisionmakers to extend the use of MeBr.

Conclusion: Bringing Technocracy Back In?

As this case study shows, decision making around MeBr CUEs was based on the particularist analytics of market disruption and did not account for general social welfare. In other words, under neoliberal governance, there is no general voice “of the public”—only specific voices “in public” (Bonanno, 2000). In a neoliberal regime, then, decision-making processes are based on stakeholders’ individual analysis of “regulatory impact,” presented in participatory processes. Although participation is based on laudable ideals of empowerment and voice, by denying a role for technocratic expertise, the state merely becomes a shell for stakeholder politics. In other words, the decline in technocratic expertise and the decline in state autonomy go hand in hand. The abandonment of technocracy as “public knowledge” opens the door to private interests avoiding regulation through brute political maneuvering masquerading as stakeholder participation. This is a dangerous development given the lack of campaign finance reform, which could further develop tendencies toward “crony capitalism” (Bartlett, 2006).

Critics have accused technocratic analytics of hindering any new regulatory initiatives; however, under the current neoliberal knowledge regime,
this form of analysis becomes a challenge to the political status quo. Particularist analytics such as market disruption analysis, on the other hand, shackle public decision making to a “no impact” criterion that only takes the cost to economic actors into account, making the economic status quo into a kind of property right and any kind of regulation as a property taking (McCarthy and Prudham, 2004). Under the neoliberal knowledge regime, therefore, the rational analytical input of scientists and bureaucrats is treated simply as the opinion of another interest group.

One case study does not establish a broad set of conclusions concerning the existence and impacts of a neoliberal knowledge regime, but similar analytics have characterized other recent policy decisions, such as electricity deregulation (Pechman, 2007) and ethanol industry subsidies (Hollander, 2008). It is therefore worth considering whether a de-legitimized state and a devalued technocratic analytics is the right way to gain the knowledge necessary to govern ourselves. It is clear that neither public nor private expertise is ideal. Our point is not to argue for a wholesale return to the “faith in rationality” exemplified by the “politics of expertise” (Beneviste, 1977); however, we would argue against the current devaluation of the role of government as a legitimate representative of “the public interest” and its replacement with a notion of government as the mediation arena for stakeholder participation.

This is not to say that civic deliberation, public participation, and giving a “voice” to stakeholders should be abandoned. In fact, we have argued in favor of this form of governance elsewhere (Gareau, 2008b; DuPuis et al., 2006). Instead, we hold that democracy, to be truly just, must be multi-epistemological (Gutman, 1999) and that deliberative democracy (Dryzek, 1997) should reserve a place for technocratic expertise, not as “the truth” but as one important tool to understand our political decisions. As this case study indicates, technocratic expertise—the ability to create legitimate knowledge above and beyond particular ways of knowing—is part of the knowledge regime necessary for state autonomy. The case study shows that neoliberal forms of knowing cannot give us the understandings necessary to realize a just democratic solution to the MeBr controversy.

REFERENCES


