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From Sustainable Development to Sustainable Governance

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It seems obligatory to begin any discussion of “sustainable development” by observing that the term eludes clear definition (see Hodas 1998, Howarth 1997, Norton & Toman 1997, Pezzey 1997, Stone 1995). Smith (1995) finds over 70 definitions; Dobson (1996, p.402) identifies “something like 300 definitions.” Revesz (1999, p.1010) gently calls it “an amorphous concept.” A list of quotations faulting the coherence of “sustainable development” could easily fill the rest of this paper.

Still, two general approaches to interpreting the phrase can be seen. First, much of the literature on sustainable development has sought to define the term in its macroeconomic totality, top-down, as the aggregate economic growth or resource use which would satisfy a criterion of sustainability over time, such as “meeting the needs of the present without compromising those of the future” (WCED 1987, p.89), or maintaining non-diminishing per capita well-being (see e.g. Howarth 1997, Pezzey 1997, Solow 1992). But this approach sheds little light on the bottom-up or inside-out constituents of sustainability; it does not describe the criteria for micro-level activity that are needed for some version of macro-level sustainable development to succeed. It sees the forest but not the trees.

A second strand of the literature on sustainable development has taken a more bottom-up approach, arguing that the concept connects and reconciles three goals -- economic prosperity, environmental quality, and social equity (the "three Es") -- in each decision (see e.g. PCSD 1999; PCSD 1996; Ruhl 1999). But this approach can devolve into an endlessly detailed inventory of every opportunity for improvement by every individual, firm, neighborhood, and community. It sees the trees but not the forest.

Both of these approaches to sustainable development offer useful insights. The top-down approach helps incorporate otherwise unpriced but nonetheless quite valuable environmental assets into macroeconomic forecasting and planning. The bottom-up approach illustrates the potential for internalizing environmental, economic and equity objectives into every decision at the local level. Both approaches exhibit a quest for "traction" (see Bartlett 1996) -- a way to move from guess to grasp, making the abstract notion of sustainable development into a rigorous and readily applicable tool. From a decisionmaking perspective, the Holy Grail of this quest is a multivariate algorithm that successfully optimizes economy, environment and equity over all temporal and spatial dimensions (Ruhl 1999).

But a problem with these approaches is that they have paid insufficient attention to the middle tier, between top-down and bottom-up: the institutional machinery of human society. By institutions I mean the set of structures in and through which people interact to attain their objectives (North 1990). These institutions include business firms ("the market"), civic organizations ("civil society"), and the

organs of government ("the state"). Sustainable development has made progress by moving beyond the arch conflict pitting unfettered resource exploitation versus unadulterated environmental preservation that has so often characterized environmental law (see Ruhl 1999; Wiener 1995), and has begun to seek a more reasonable and less polarized reconciliation. But the discourse on sustainable development seems to have neglected its institutional side, or else retained the institutional bias of the traditional conflicts.

In emphasizing the need for sustainable *development*, the discourse to date has focused on accepting the need for some economic growth and then managing the environmental impacts of such economic growth. It has operated on a model in which environmental outcomes are a function of economic development; but it has neglected the set of institutional variables that mediate between economic activity and environmental impacts. Economic growth is not necessarily associated with environmental degradation, nor is it necessarily associated with environmental improvement; the ways in which economic activities affect the environment depend crucially on the institutions through which society operates. Just as economic prosperity is not determined only by a country's resources and technologies but derives at least as much from the country's institutions (Olson 1982; World Bank 1997), so environmental performance may not be determined only by a society's economic development but may derive at least as much from the society's institutions.

Implicitly or explicitly, the discourse on sustainable development has represented its two

conflicting forces -- economic development versus environmental protection -- as the invisible hand of private markets on the one hand, and the visible corrective hand of the state on the other. Carley & Christie (1993) develop this juxtaposition at length. A standard characterization defines sustainability as asking whether "markets generate incentives for resource conservation sufficient to ensure the welfare of future generations" and, if not, then which "policies would adjust market outcomes to secure future welfare" (Farmer & Randall (1997) at 608). The premise is that markets are the problem, and that government policies are the exogenous force which can secure sustainability.

Further, the framers of the concept of "sustainable development" often say that a necessary element in its implementation is adherence to the "precautionary principle" (Cameron & Abouchar (1991) p.18; Revesz (1999) p.1013; Howarth (1995)). The precautionary principle in turn is defined as a legal doctrine requiring that "a substance or activity posing a threat to the environment is prevented from adversely affecting the environment ... [it seeks] a reversal ... of the current position whereby polluters can continue to discharge ... [and] marks a re-evaluation of ... industrial development [which] has severely degraded the environment." (Cameron & Abouchar (1991), p.2.) The point here is not that the precautionary principle is right or wrong (a topic for another day), but that it has been interpreted in terms of the public-private interface, to require government regulation of private industry unless private industry can demonstrate the absence of adverse environmental effects (see Cross (1996) at 852-858). This way of thinking builds on a long tradition, from at least Pigou onward, of diagnosing market failures such as pollution and then imagining that government is a benign exogenous

force with the fiat power to impose precisely corrective environmental policies (see Wiener (1999) at 701-703, citing Pigou (1932) pp.192-195).

Clearly, ordinary economic markets do fail to protect the environment adequately, and it is absolutely right to say that society should remedy these failures, often through government regulation. What this approach largely neglects, however, are the environmental dysfunctions of the state itself. I will argue here that, far from being an exogenous force for sustainability, government is an endogenous and imperfect human institution which systematically generates highly significant adverse environmental impacts. Government can help, but it can also hurt. An analogy to medical care is useful: like a doctor or a hospital, government is a source of remedies for social maladies, but the remedies can be ineffectual or can pose their own adverse side effects (see Wiener (1998); see also Janicke (1990), Moynihan (1993)). The range of potentially unsustainable government activities is quite broad, including perverse subsidies for logging and other resource extraction, narrowly conceived public works projects such as dams, regulatory interventions generating new risks, and defects in the very legal system undergirding property and contract rights which shape private markets. In its full scope, unsustainable governance may actually be a larger environmental hazard than unsustainable private industry, especially in countries dominated by the state sector but even in market-oriented societies like the United States.

What is needed is a concept of "sustainable governance" to proceed in tandem with "sustainable

development." The marriage of these two concepts would reflect the reality that both private and public activities merit attention and reform. Yet these two concepts are not developing in tandem. "Sustainable development," despite (or perhaps because of) its ambiguity, is now moving from a widely accepted norm to an official policy goal and may soon be an enforceable feature of "hard law" (Ruhl 1998). By contrast, "sustainable governance," as I will elaborate here, lags far behind. Although very occasionally enforced by courts, its application is more often rebuffed or even outlawed by legal rules. It may not have even become a widely accepted norm (the most preliminary of Ruhl's "seven degrees of relevance"). In this essay I explore the reasons for this imbalance, the legal barriers that currently obstruct efforts to promote sustainable governance, and the remedial options for achieving sustainable governance.

Unsustainable Governance

The state plays an enormous role in development and environmental outcomes. In some countries, the state owns much of the means of production. At least until 1989 this was the case in Eastern Europe and the Former Soviet Union, countries currently in the transition to some form of private market ownership. Even in wealthy Western industrialized countries, the state plays a major role. In OECD member countries, total government expenditures were about 20 percent of GDP in 1960, and grew to over 40 percent of GDP by the 1990s (World Bank (1997) at 2). In developing countries, the government share of GDP grew from about 15 percent of GDP in 1960 to about 30

percent of GDP by 1990 (id.). In the United States, the federal government owns about one-third of the land area of the country.

Beyond this role as a direct player in economic activities, the government as regulator wields power over the entire economy and society. At least since the New Deal and the Great Society -- including the emergence of modern environmental law since the 1960s -- the power of the American (and European) administrative state to regulate private arrangements has become vast (Horwitz (1989), Sunstein (1990)). To be sure, many countries place constitutional constraints on state action, such as the separation of powers, judicial review, and the Bill of Rights and the Commerce Clause in the U.S. legal system (see World Bank (1997) at 99-109). But these still leave a huge arena of legitimate regulatory power over activities affecting interstate commerce in the hands of the Federal government, and additional power over intrastate affairs in the hands of the fifty State governments. In countries without effective legal limits on state power, regulation may be open to nearly unfettered use and abuse (see World Bank (1997) at 148-150; Shleifer & Vishny (1998)).

Further, the government's role as adjudicator of private disputes and enforcer of private rights makes the state essential to the shape and magnitude of all market activity (see Menell & Stewart (1994) at 68 & n.28, Stiglitz (1989), Sunstein (1997) at 5, World Bank (1997) at 41). In common law countries the definition and enforcement of private legal rights is performed chiefly by the judicial branch of government, but it also inescapably involves executive and legislative branch actions that create new

rights and that finance the effective administration of rights in practice (see Holmes & Sunstein (1999)).

The adverse environmental impacts of the state arise in numerous forms, but it seems useful to consider two basic versions of state failure: excessive weakness and excessive strength. By failures of weak governance, I mean the incapacity of the state to protect legal rights and to resist corruptive pressures. By failures of strong governance, I mean the use of unduly caustic measures to achieve well-intentioned policy goals. Of course there is potential overlap between these types of state failure, and one could adopt a different classification (see e.g. Wolf (1988)), but I use this simple taxonomy here in order to make a very elemental point. The point is: governance can be unsustainable if its medicine is too weak or too strong. Sustainable development, then, is not just a matter of diagnosing market failure and invoking government as a remedy. Given that there can be government failure as well as market failure, the challenge is to minimize the sum of both (Buchanan & Tullock (1962)). The challenge of sustainable governance must be to design institutions and policy instruments that optimize governance across the diverse risks of state and market failure.

I have analogized the state to a doctor or a hospital, an analogy which I have developed in more detail elsewhere (Wiener (1998)). This analogy seems apt in the field of environmental protection. When market failures such as externalities -- effects of activities on third parties -- cause environmental harm to a society, the society resembles a patient presenting symptoms of an ailment to a physician. The doctor must diagnose the ailment (risk assessment) and then decide what remedy to

prescribe (risk management). Yet medical remedies are not perfect, and studies of medical care in the United States indicate that hospitalization regularly injures about one in every twenty-five patients and kills about one in every two-hundred -- amounting to an estimated 50,000 - 150,000 deaths per year from the adverse side effects of hospitalization in the United States (Kohn et al. (1999); Weiler (1993) at 36, 43-55) -- at the high end, a total greater than that from occupational accidents, automobile accidents, and handgun violence *combined*. Similarly, entry into the system of governance can cause injury. Unduly weak governance is like a quack medication that lets the patient die for lack of a real remedy. Excessively strong governance is like a caustic remedy that treats the ailment but also creates new "iatrogenic" (care-induced) health problems for the patient (Moynihan (1993); Wiener (1998)). Put another way, state intervention to reduce a "target risk" may fail to do so, and/or may create new "countervailing risks" (Graham & Wiener (1995)). Either weak or strong governance, if extreme enough, can seriously harm or kill the patient.

The environmental injuries arising from weak governance are well known. These include the worldwide practice of government subsidies for environmentally damaging activities, such as logging, grazing, farming, mining, water use, dam construction, and fuel use (see Ascher (1998), World Bank (1992), Myers (1998)). I label these as instances of weak governance because they tend to reflect the lack of state backbone. The state is typically conferring these subsidies as a service to the powerful special interests which dominate politics and distort government activities to favor themselves over the collective public interest (Olson (1965)). Subsidies of fossil energy use, for example, have been

estimated to account for about 10 percent of observed emissions in 1990 (World Bank (1992)), roughly double the amount sought to be controlled by the Kyoto Protocol.

A second and more general form of weak governance occurs when the state does not or cannot protect security in property rights. The basic inability of the state to underpin market activity not only inhibits economic development in general (World Bank (1997)), but is often a prime contributor to environmental degradation. It is the lack of secure property rights (in particular, the right to exclude, whether held by an individual or a group) that yields the "tragedy of the commons" (more accurately, the "tragedy of open access") as a result of a "race to deplete" unowned resources such as fisheries, forests, and the atmosphere (Hardin (1968), Ostrom (1990), Deacon (1994), Deacon (1999)). Indeed, pollution itself -- typically seen as a market failure -- can also be seen as the failure of governance institutions to regulate enough, that is, to create the exclusive property rights that would limit access to the otherwise open-access air, water and land. More generally, public choice theory teaches that politics will tend to be dominated by special interest groups and to neglect the provision of generally shared benefits (Eskridge 1988; Olson 1965). If so, we can expect government to systematically underprovide environmental quality.

The environmental impacts of excessively strong governance are less well known but no less worrisome. As a general matter, it is commonplace that well-intentioned government policies can produce undesirable "iatrogenic" or "countervailing" side effects (for numerous examples, see Graham

& Wiener (1995), Wiener (1998), and Cross (1996)). Mandating airbags in cars can save adults but kill children (Graham & Segui-Gomez (1997)). Requiring increased fuel economy can make cars lighter and hence less safe in collisions (*Competitive Enterprise Institute v. NHTSA* (1992)). Banning drugs can reduce addiction but increase violent crime among gang suppliers (Moynihan (1993)). As the events in Kosovo demonstrated, bombing the forces of despots bent on ethnic cleansing can unintentionally hit convoys of refugees. The same kinds of risk-risk tradeoffs occur in environmental regulation. Controlling pollution into one medium, such as air, may simply shift pollution to another medium, such as water, land, or the workplace (Graham & Wiener (1995)). Banning one pesticide may result in the use of another pesticide, potentially one that is more toxic or that shifts risk from consumers to workers (Gray & Graham, chapter 9 in Graham & Wiener (1995)). Banning asbestos can increase highway accidents (*Corrosion Proof Fittings v. EPA* (1991)). Mandating prompt cleanup of oil spills via hot water spraying can cause damage to coastal microorganisms, ultimately injuring the beach more than the spill itself (Lancaster 1991). Mandating lower levels of urban smog (tropospheric ozone) can result in higher levels of incoming ultraviolet (UV) radiation (Lutter & Wolz (1998); *American Trucking Ass'ns v. EPA* (1999)). Restricting carbon dioxide emissions alone can yield increased methane emissions, potentially causing a net increase in global warming (Wiener, chapter 10 in Graham & Wiener (1995)).

Understanding the dysfunctions of government requires recognition that government is an endogenous and imperfect institution. Government is not outside of society; it is part of the same

society that manifests markets and market failures. The failures of weak and strong governance are *institutional* failures analogous to market failures. Markets may underproduce "public goods" such as environmental protection because "free riders" undermine the incentive of market actors to cooperate in the common interest. Similarly, government institutions may underproduce public goods because free riding in the political arena undermines the incentive of government actors to serve the common interest (see Olson (1965)). As market actors respond to the voice of self-interest, so government actors may respond to organized special interests and to internal bureaucratic incentives (Wolf (1988)). Subsidies for logging, grazing, mining, and dams and resources left open-access for exploitation appear to reflect the disproportionate influence of concentrated special interests on government policy. Narrow pursuit of "target risks" with inadequate attention to the resultant "countervailing risks" can also be attributed to the excessive political influence of organized groups and the "omitted voice" of the general public, disenfranchised minorities, and future generations (Graham & Wiener (1995), chapter 11). Environmental justice problems can therefore be seen as a form of countervailing risk, and of state failure. The central concern of sustainable development -- that present development may compromise the interests of future generations -- can be traced to the failure of government institutions to internalize the interests of future generations who do not vote in present elections (id.; Howe (1997) at 604).

These state failures can also be understood as "regulatory externalities" or "government externalities." (For related discussions, see Weisbrod (1978) and Wolf (1988).) Markets may fail when market actors cause harm to third parties uninvolved in the market transaction. Such market

externalities often warrant government response. But government may fail when government actors cause harm to third parties uninvolved in the regulatory decision. Such "regulatory externalities" are the economic understanding of what I have called "countervailing risks." A plausible hypothesis is that regulatory externalities, like market externalities, will arise when the benefit to the causal actor of internalizing the externality does not justify the cost to that actor of doing so. In the market context, the benefits of internalizing externalities would always induce such internalization where the costs of a transaction between victim and causal actor are zero, but because such costs are typically not zero, externalities may persist (Coase 1960). In the government context, the benefits of internalizing regulatory externalities would induce internalization where the costs of doing so are zero, but because such costs are typically not zero, regulatory externalities may persist. There are costs on both sides of the regulatory externality. The victims of the regulatory externality face costs of political organization and voice; that is why they are saddled with the countervailing risks of policies designed to serve other, more vocal groups. And the suppliers of regulation face costs of analyzing and deliberating about regulatory side effects (see Wiener (1998) at 69-78). The costs of such deliberation mean that regulatory agencies may neglect harms outside their mission area, or even within their mission area if it is inconvenient to reconsider a policy that has gained bureaucratic momentum. Ideal regulatory decisionmaking would account for deliberation costs in determining how much attention to give to countervailing risks (see *id.*), but government actors, like market actors, may engage in heuristic shortcuts that economize excessively on deliberation costs and yield inefficiently large externalities.

In short, the environmental degradation we observe may be the result of unsustainable governance as much as of unsustainable development. The symptoms of unsustainable governance -- perverse subsidies, open-access resources (including pollution in general), and countervailing risk -- are widespread and serious sources of environmental hazard. Narrow focus on sustainable development to the neglect of sustainable governance may leave problems unsolved. The concept of "sustainable development" gives no good guidance on how to resolve conflicts between target risks and countervailing risks, such as cross-media shifts of environmental stress (see Stone (1995) at 2). And, if the response to unsustainable development is more of the same kinds of governance that we have employed in the past, then stressing sustainable development and precaution, without simultaneous attention to sustainable governance, could actually make things worse.

Legal Obstacles to Sustainable Governance

If overly weak and overly strong government could be corrected by judicial or Presidential review, the prospects for sustainable governance might be improved. But in the United States a series of legal hurdles stands in the way, and one might expect the situation to be similar or worse in many other countries where the tradition of judicial review and accountable government is not as robust as it is here.

Constraining the environmental impacts of government is not new to American environmental

law. It is the central aim of the National Environmental Policy Act (NEPA), enacted in 1969 as the cornerstone of the modern environmental law edifice and copied around the world. Yet NEPA and subsequent law have not succeeded in achieving sustainable governance.

The genesis of NEPA was the recognition that "omitted voice" and heuristic limits on analysis, just as they generate market externalities, could also lead government agencies to neglect the harmful effects of their projects on interests outside their mission. In an effort to remedy such government failure, NEPA requires every federal agency to include in each proposal for major federal action a statement of the environmental impact of the proposed action (an Environmental Impact Statement (EIS)), including discussion of reasonable alternatives to the proposed action (see 42 USC 4332(2)(C)). It also requires agencies to develop methods to take appropriate account of environmental values along with economic considerations (42 USC 4332(2)(B)). Although NEPA does not expressly provide that citizens may enforce its provisions against agencies, Judge Skelly Wright held in *Calvert Cliffs Coordinating Committee v. U.S. Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971) that NEPA was enforceable under the Administrative Procedure Act (APA) (5 USC 706). Judge Wright went further, asserting that NEPA contained both a procedural requirement to prepare the EIS, and a substantive requirement to balance the environmental costs of the proposed action (read: externalities of state action) against its target benefits. Judge Wright suggested that an agency action could be rejected by the courts as arbitrary under the APA if, after NEPA, it struck an unreasonable balance between environmental costs and target benefits (Id.).

Subsequently, however, the courts began to limit NEPA. First, the U.S. Supreme Court has held that NEPA is purely procedural, requiring only the "stop and think" function of preparing the EIS and not the substantive function of balancing costs and benefits or choosing alternatives which yield greater net benefits (see *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 551 (1978); *Strycker's Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 230 (1980); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 (1989)). Second, the Court has held that NEPA does not apply to appropriations bills -- the acts of Congress that finance perverse subsidies (*Andrus v. U.S.*, U.S. (1978)) -- even though NEPA's text expressly applies to all proposed legislation. Third, even the purely procedural element of NEPA has been held not to apply to regulatory decisions by environmental agencies such as the Environmental Protection Agency (EPA). The notion is that the EPA's own internal decisionmaking process would generate the "functional equivalent" of the EIS required under NEPA, so that applying NEPA would be duplicative (see e.g. *Weyerhaeuser v. EPA*, F.2d (10th Cir. 1974)). Whatever the virtues of this notion as a policy matter, the text of NEPA itself makes no such distinction. Congress then exempted all rulemaking under the Clean Air Act and Clean Water Act from review under NEPA (see 15 USC , 33 USC). The blanket shield provided by the "functional equivalence" doctrine and statutory exemptions, however, relieved the agency of the responsibility to examine the adverse environmental impacts of its decisions even where the agency's internal decisionmaking process would not generate such analysis. And the problems of "omitted voice," heuristic limits on analysis, and concomitant cross-media pollution shifts suggest that one office within EPA may well neglect the consequences of its rulemakings for the

environmental media that are under the jurisdiction of other EPA offices, or of other agencies such as OSHA or NHTSA. (On other problems with NEPA, see Hodas (1998).)

Meanwhile, the Supreme Court's evolving doctrine of standing makes it difficult for litigants to challenge the environmental injuries caused by government agencies. If a private party causes injury to natural resources, courts have held that the statutes making such parties liable to the state for damages do recognize the state's standing to sue for the loss of "non-use" or "existence" value (see *Ohio v. Department of Interior*, F.2d (D.C. Cir. 1990)). But if a government agency causes injury to natural resource, say by subsidizing construction projects or resource extraction on sensitive lands, the Court has in effect held that private citizens do not have standing to sue for the loss of "non-use" or "existence" value, at least not on that ground alone. A private litigant must show "injury in fact" (*Sierra Club v. Morton*, 412 U.S. (1973)), which the Court has interpreted to mean that the litigant was actually present on the land affected -- an actual user, not merely a valuer of the non-use status of the land (see *Lujan v. National Wildlife Federation*, U.S. (1991); *Defenders of Wildlife v. Lujan*, U.S. (1994); *Laidlaw Environmental Services v. _____*, U.S. (2000)). The upshot is that the non-use value losses caused by government actions may tend to be underlitigated and inadequately internalized by government agencies.

The Court has further impeded efforts to vindicate the interests of victims of countervailing risks by holding that the "zone of interests" test under the APA (see *Association of Data Processors v.*

Camp, U.S. (1974)) prevents a litigant whose interests are "inconsistent with the purposes of the statute" from challenging agency action under the statute (*Clarke v. Securities Industries Association*, U.S. (1990)). The goal of this doctrine is to limit tangential litigation, but it has the effect of reinforcing the state failure that resulted in the legislation in the first place. It may be precisely because the victims of the countervailing risk were omitted voices in the legislature that they received the brunt of the regulatory externality now visited upon them. If so, it is no wonder that the statute specifies a purpose that is inconsistent with these victims' interests. If the victims could have secured favorable attention under the statute, they would not have been injured by the countervailing risk and would not have had to bring suit. Thus, the Court's "zone of interest" test ensures that the same people omitted from legislative consideration will be excluded from court. It misunderstands, or worse condones, the problem of regulatory externality.

It is also clear that government agencies cannot be sued in tort for the environmental injuries caused by their policies. When the Congress waived the U.S. Government's traditional sovereign immunity in the Federal Tort Claims Act (FTCA) in 1946, it nevertheless retained immunity for the actions within the "discretionary function" of the agencies (see). Policy decisions, including both regulatory rulemaking and large expenditures such as those for a dam, are clearly within the "discretionary function" exemption to the FTCA. Thus, whereas market externalities may be deterred by tort litigation, government externalities face no such incentive.

Nor can the government be sued for its failure to enact environmentally protective legislation. There is no federal Constitutional right to legislative protection of environmental quality (Krier 199_), despite the incentive of legislatures to underproduce general public goods. And to date litigation has not been successful in ending federal resource subsidies. Perhaps wasteful subsidies for overuse of public resources might be held to violate the Public Trust Doctrine (Menell & Stewart 1994, pp.), but so far that doctrine has largely been confined to coastal lands.

Even Presidential efforts to reign in the administrative state have not achieved much progress toward sustainable governance. Executive Order 12291, issued by President Reagan in 1981, directed agencies to perform benefit-cost analysis. But it did not say anything about the adverse health or environmental impacts of health and environmental regulation. Such countervailing risks could be thought of as part of the overall "costs" of a regulation, but the agencies and OMB tend to define costs as the costs of compliance for industry. Again, compared to the well-organized political power of industry to protect its interest, the victims of countervailing risks are an omitted voice. And a focus on industry's compliance costs could actually mean exacerbating the countervailing risks of the regulation. The reason has to do with substitutes for the regulated product or activity. If switching to substitutes is easy (inexpensive), compliance costs will be low but countervailing risks -- of the substitute product -- may be high. If by contrast switching to substitutes is difficult (expensive), compliance costs will be high but countervailing risks may be low. Thus, cost-benefit analysis under EO 12291 may even have worsened countervailing risks in the effort to reduce compliance costs to industry. (Note that this

potentially inverse relationship between compliance cost and countervailing risk also suggests that industry is not a reliable surrogate litigant for the interests of countervailing risk victims whose claims are barred by the "zone of interests" or "injury in fact" tests.)

Executive Order 12866, issued by President Clinton in 1993, made some progress by expressly including adverse health and environmental impacts in the definition of "cost." But it remains to be seen whether OMB and the agencies will pay any attention to this language. And because EO 12866 (like EO 12291) applies by its own terms only where its analyses are not prohibited by law, the entire admonition to consider "cost" will be irrelevant wherever statutes forbid such consideration (as several do). A better move would be to define countervailing risks as part of the overall calculation of "benefit." And, of course, the EOs are enforceable only by OMB, not by private litigants in court.

Some courts have held that the harmful side effects of government action must be taken into account for the agency to be practicing "reasoned rulemaking" that is not "arbitrary" under the APA. In *CEI v. NHTSA*, 956 F.2d 321 (D.C. Cir. 1992), the court required the agency to weigh the adverse effects on highway safety of its rule for vehicle fuel economy. Others have held that a statute directing the agency to "prevent unreasonable risk" obliges the agency to confront the adverse side effects its actions may have (see *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201 (5th Cir. 1991) (requiring agency to weigh the adverse effects on highway safety of its ban of asbestos)). And in *American Trucking Ass'ns v. EPA*, 175 F.2d 1027 (D.C. Cir. 1999), the court held 3-0 that a statute requiring

EPA to “protect the public health” against “all identifiable effects of the pollutant in the air” meant that EPA had to consider the risks of too little ground-level ozone (namely, increased UV irradiation) as well as the risks of too much ground-level ozone. This decision could add considerable force to the emerging judicial requirement to confront regulatory externality, but it could just as well be confined to the text of Clean Air Act sections 108 and 109.

Perhaps new "regulatory improvement" legislation will require greater attention to countervailing risks (see the Safe Drinking Water Amendments of 1996, codified in 42 USC 300g-1(b) (authorizing EPA to consider countervailing risks when setting drinking water standards); and S.746, the Levin-Thompson bill, 106th Cong. (Requiring attention to “substitution risks”)). But excessive judicial or Presidential second-guessing of the second-order consequences of agency regulations may push agencies into excessive analysis of attenuated side effects and thus excessive delay before regulating target risks (Hornstein 1992). Any such legislation should therefore take care to authorize or require only reasonable, not indefinite, attention to countervailing risks (see Wiener (1998) at 76).

As to the problems of state failure to protect property rights and to limit open-access resources, there is little if any scope for direct remedies through litigation. Reform will require political pressure and institutional change. Blackstone (“necessity begat property”) and Demsetz have painted optimistic pictures of the emergence of property rights to prevent overuse of scarce resources, but how that transformation occurs in practice remains rather enigmatic, especially when the overuse is condoned or

encouraged by a powerful central state. Similarly, the acute fragmentation of the administrative state and legislative committees into an array of bounded fiefdoms, each interested in its own mission but creating externalities in other mission areas, will not easily be overcome.

Toward Sustainable Governance

A great deal might be said about options for sustainable governance and for internalizing regulatory externality -- at least as much as has been written about options for sustainable development and for internalizing market externalities. Here I will only begin this discussion.

First, the choice is not one of "more" government versus "less" government. Government failures derive from both weakness and strength, so that "less" could be as problematic as "more." The real problem is neither markets nor government; it is externality, omitted voice, and flawed analysis. The real question is much more complex than less versus more: it is how to design instruments of government that are both more therapeutic and less caustic. We need not just less or more medicine, but the right medicine for the right ailment at the right time. We need not less or more state intervention, but a state that is sustainable because it is both effective and agile.

Second, we need to see the state as an imperfect and endogenous institution. Once stated, this

proposition is almost self-evident, but it is continually overlooked in discussions of sustainable development and environmental policy. The implications are significant. Seeing the state as an imperfect institution, which can hurt as well as help, shows the potential conflicts and opportunities in the Precautionary Principle. If the PP is understood to apply only to private polluters, it misses the point of sustainable governance. On its terms, the PP could embrace governance as well; it refers to "a substance *or activity* posing a threat to the environment " (Cameron & Abouchar (1991) at 2), and thus the PP could apply to government activity as well as to private activity. This clearly makes sense in the context of government-sponsored dams and logging subsidies. But if the PP is applied to government regulatory activity -- which it would have to be, if applied at all, given the potential countervailing risks of regulation -- it would imply that precautionary regulation itself could not go forward until the proponents of such regulation demonstrated that the regulation would have no ill effects. The PP would swallow itself. See Cross (1996) at 861. Either much regulation would be blocked, or the PP's effort to bar every risky action -- now understood to include both the market activity and the regulation of that activity -- would have to give way to a more reasoned balancing of the conflicting risks that may be reduced and created by a government action (see Wiener (1998) at 59-82). The recognition of state failure and regulatory externality should lead to a new search for "risk-superior moves" which reduce multiple risks in concert instead of replacing target risks with countervailing risks (Graham & Wiener (1995); Wiener (1998) at 64-67, 78-82).

Third, much effort is needed to reform perverse subsidies and to bolster the basic legal systems

that prevent the race to capture. Strengthening these aspects of weak government may be the most obvious and imperative steps toward sustainable governance. Novel legal strategies could seek to apply the Public Trust Doctrine to government sales of public resources below cost. For example, one could argue that selling federal timber or water below cost (at a loss) defrauds the public for whom the government holds these resources in trust. Victims of hog farm pollution have recently been successful in arguing that state statutes enacted to protect and promote hog farms represent a "takings" of the neighbors' property rights to be free of unreasonable pollution (*Bormann v.* (Iowa 1998)). Even though a judicially enforceable right to environmentally protective legislation seems unattainable (and potentially unwise, if it would put courts in the position of specifying policy prescriptions), creative legal strategies to block the most egregious government subsidies could accomplish a great deal. Certainly the exemption for appropriations bills in NEPA should be removed. Meanwhile, advocates of environmental protection should be strong political proponents of subsidy-cutting measures, both at home through domestic legislation and internationally through the World Trade Organization agreement on subsidies. This is one of several areas in which the WTO/GATT regime can assist environmental protection.

Fourth, we should study closely our options for "internalizing regulatory externality." One path is to impose on the state financial liability for the injuries it causes, much as the private sector is currently liable. This could involve waiving sovereign immunity, imposing pollution taxes on government agencies, requiring agencies to post security bonds to insure against the errors in their EISs (Hodas (1998)), and

other measures. A caution, however, is that government agencies are not exactly like market firms; unlike firms' money earnings for selling their products, government agencies do not earn financial profits on their provision of social benefits, so a tax or liability on government's social harms could induce overdeterrence.

Fifth, a more promising path is to re-integrate the fragmented decisionmaking structure of the state. This would involve more vigorous overarching supervision within the Executive branch (with the power authorized by Congress to identify and internalize regulatory externalities). Such a function would act as the "primary risk manager" for the state (Graham & Wiener (1995), chapter 11). In addition, agencies and committees could be required to notify one another if an action here would cause impacts there. EPA has recently agreed to notify OSHA when new EPA air toxics rules might induce firms to seal pollutants inside the plant. Even some mergers of splintered agencies could be worthwhile, as the U.K. and Mexico have each recently attempted -- and as the U.S. itself undertook when it created EPA thirty years ago. For example, it may be time to study whether bringing the EPA, OSHA, NHTSA, FDA, FAA, and CPSC, among others, under the common supervision of a single official would enhance the bottom-line responsibility for the joint impacts of these interrelated agencies and reduce risk-risk tradeoffs among them. Short of such mergers, better cross-media integration within EPA would be desirable. And Congressional authorization should be given to agency heads to consider risk-risk tradeoffs in setting regulations, notwithstanding pre-existing legislative edicts to the contrary. This is the approach taken in the 1996 amendments to the Safe Drinking Water Act (see 42

USC 300g-1(b)(5)), which passed the Senate 98-0 and the House 392-30. It is a move toward a more holistic and sustainable approach to regulation. Further, the "functional equivalence" doctrine (judicial and statutory) under NEPA could be abolished, and thought should also be given to reviving the substantive cost-benefit test seen in NEPA by Judge Skelly Wright.

Conclusion

It should be clear that focusing attention on the sustainability of government activity is neither anti-environment nor anti-development. If the state is causing environmental harm, advocates of environmental protection should not pretend it is not. Indeed, constraining the environmental impacts of the state has been a hallmark of environmentalism and environmental law, from at least NEPA forward to the contemporary concern about perverse government subsidies and risk-risk tradeoffs.

Environmentalism should not equate state intervention with promoting environmental sustainability per se. The goal of environmentalism and sustainability should be protecting the environment against the hazards of all imperfect institutions, private and public, rather than an unbreakable alliance between environmental groups and the state against markets and capitalism. The apparent coalescence of such an alliance, reflected in much of Green politics as well as in the academic literature on "sustainable development," is both an environmental mistake -- because the state can harm as well as help -- and a public relations mistake -- because it gives credence to the cynicism that environmentalism cares more

about government control of society than about real ecological consequences. It paints environmentalists as Watermelons -- Green on the outside, Red on the inside -- a perception which can only undermine the long-term sustainability of environmentalism itself. The occurrence of unaddressed countervailing risks will also undermine public confidence in regulation. The solution is for environmental protection to rediscover its roots in skepticism about the activities of all institutions, and remember that, like a business or a doctor's office, the state, too, is an imperfect institution, one that can injure as well as nurture. Governance that is too strong -- in the sense of a medicine that is too strong, too caustic -- is no friend of environmental sustainability.

Ultimately, the environmental problem is not development, or markets, or capitalism. The real environmental problem is flawed institutions. It is structures for human activity that do not take account of the impacts they visit on the environment. Among these flawed human institutions we must count not only firms but also the numerous and diverse organs of governance. And we must even include the government agencies whose ostensible mission is environmental protection.

Meanwhile, advocates of economic development, in both rich and poor countries, should not see the absence of state intervention as the ideal condition for development. Insufficient governance can be as disruptive of markets and economic activity as excessive governance (World Bank 1997). If the state does not define and protect property rights, development will wither, and environmental resources will be overconsumed. Nor is advocating attention to sustainable governance, in parallel with

sustainable development, a move to downplay the importance of development. Both concepts are essential, and without sustainable governance there cannot be successful development. Nor, without sustainable governance, can there be successful environmental sustainability: state failure to protect property rights can be a major factor in the "race to deplete" resources that is the epitome of unsustainable development (Deacon 1994, 1999). Governance that is too weak -- in the sense of medicine that is too weak, too ineffectual -- is no friend of development, nor of environmental sustainability. A "minimalist state ... would do no harm, but neither could it do much good" (World Bank 1997, p.iii).

If it is to succeed, then, "sustainable development" must go arm-in-arm with "sustainable governance." The latter alone would likely neglect the problem of market failure. But the former alone would target market failure while neglecting state failure. It would risk acting like a patient who feels sick and seeks therapy, but does not care which medicine the doctor prescribes. Because our goal is not just medicine for its own sake, but a healthy planet patient, we must be informed consumers of state therapy. We must see government as imperfect, endogenous, and improvable. Inasmuch as sustainable development is about redefining "development" and "growth" to mean not just more output of goods and services, but better output -- more social and environmental value rather than just more quantity (Daly 1996 -- sustainable development must take into account the social and environmental value of the services of all social institutions, including the state. But just tucking this concept into the already sprawling rhetoric of "sustainable development" seems a recipe for further neglect. It is better,

then, to construct a parallel concept of "sustainable governance," and pursue that goal with equal zest.

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