In Review

Faux Market Environmentalism

Reviewed by Jonathan H. Adler

THE NATURAL WEALTH OF NATIONS: Harnessing the Market for the Environment

by David Malin Roodman 303 pp. New York: W.W. Norton/Worldwatch Environmental Alert Series, 1998

E ARE ALL FREE-MARKET environmentalists now at least it seems that way listening to the current environmental debate. The currency of command and control is valueless; ecological central planning has proved to be no more viable than its economic variant. The facility of markets at increasing efficiency, fostering innovation, and aligning incentives is no longer in dispute. Incentives and marketable instruments are all the rage in environmental circles, as green analysts of every political stripe seek to demonstrate how their approaches embrace market principles.

THE MARKET BANDWAGON

MARKET RHETORIC IS SO DOMINANT IN environmental discussions that even the world's arch-Malthusian policy shop—the Worldwatch Institute—is compelled to adopt the language of markets to advance its sustainable development crusade. After years of advocating greater regulatory control at all levels of government—local, regional, national, and (especially)

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international—Worldwatch included a chapter on "harnessing the market for the environment" in its 1996 State of the World report. The chapter placed the language of incentives and "externalities" alongside calls for "a revolution in human reproductive behavior," reduced meat consumption, massive recycling mandates, and a "phaseout" of fossil fuels. But the embrace of markets was only halfhearted. The same annual report also railed against water markets despite the broad academic consensus that market reforms are necessary to alleviate water scarcity.

The 1996 report was a sign of things to come. In The Natural Wealth of Nations: Harnessing the Market for the Environment, Worldwatch analyst David Malin Roodman seeks to provide a broader perspective on market environmentalism, Lester Brown-style. Because "the market has become a threat to its own survival," it is necessary "to change the way public institutions raise and spend money" (p. 245). The ultimate program is to "replace private profit from unsustainable abuse of our natural inheritance with collective profit from sustainable use." (p. 25, emphasis in original).

Roodman talks about markets quite a bit and disparages political interventions. He rails against subsidies and praises the way prices influence behavior. He even tosses out references to Nobel laureate economists Ronald Coase and F. A. Hayek. Yet, *The Natural Wealth of Nations* does not mark a conversion in environmentalist thinking. Rather, it is an effort to attract new converts by adopting the outward appearance of markets to cloak a more traditional Malthusian agenda to "reengineer" modern civilization. Roodman simply seeks to enlist economic instruments in the process—out of necessity rather than conviction, for regulators "are not up to the task...on their own" (p. 20). Indeed, the foreword by series editor Linda Starke seems to lament that "market economics will remain the dominant economic system for the foreseeable future" (p. 12), therefore, accommodations must be made.

The goal of Worldwatch, like so many others that mouth adherence to market strategies, remains "major per capita reductions in energy, wood, minerals, and water use." Fossil fuel use, in particular, must be cut a whopping 90 percent, in Roodman's view, lest humanity trigger a greenhouse apocalypse (p. 20). "[E]thics, seriously applied, demands that pollution and resource waste be banned now" (p. 157). If this can't be done with rules and regulations, Roodman concludes, maybe the proper mix of taxes, tradable permits, and ecologically correct subsidies can do the trick.

The Natural Wealth of Nations begins, naturally enough, by recognizing the current system's failings. Regardless of the gains centralized regulations provided in the 1970s, there is widespread recognition that they are no longer doing the trick. Regulations fail "for precisely the reason that central planning has run aground almost everywhere it has been tried" (p. 20), Roodman notes, because regulators can't do it alone. Continuing environmental improvement requires "giving freer rein where possible to industry's own problemsolving ability" (p. 23).

One of the major failings of regulation that Roodman acknowledges is the false presumption of knowledge on the

part of regulators. "[R]egulations are increasingly being pushed beyond their limits," in no small part because they often mandate specific technological fixes to given problems (p. 150). This tends to lock technologies in place, even if better alternatives exist. Technological innovation is, as Roodman concedes, "intrinsically unpredictable, No agency can plan it" (pp. 20-21). By the same token, technology-forcing mandates are of limited utility in producing desired environmental gains.

SUBSIDIZING ECOLOGICAL HARM

ROODMAN DEVOTES SUBSTANTIAL space to the harm caused by government subsidies that distort economic

incentives in the marketplace. He notes the irrationality of subsidizing environmental harm, as such policies "cost the public twice: in the pocketbook, and by harming the environment" (p. 35). Subsidies to resourceextraction industries, in

Roodman's analysis, "invite a fourpronged indictment: they increase the cost of government; the higher taxes they necessitate discourage work and investment; they fail on their own terms; and they hurt the environment" (p. 36). On this point, Roodman is undoubtedly correct. Many developing nations still aggressively subsidize the exploitation of their resource base. In the United States, subsidies for everything from disaster insurance to predator control affect private economic behavior in a manner that increases environmental impact.

Roodman also argues that subsidies encourage resource depletion, and thereby "depriv[e] future generations of limited natural resources" (p. 156). This, Roodman claims, is the basis for a "moral" argument against subsidies. Although Roodman doesn't want natural resources used, he suggests that future generations should at least get a shot. ("Don't burn all the fossil fuels now, Ma, I want a chance to enhance the greenhouse effect myself when I grow up.") Were he not a

researcher at the Worldwatch Institute, which has built its reputation on repeated claims that the end of some resource or environmental good is near—one could presume Roodman knows better. There is little reason to fear running out of oil or mineral resources, for prices will rise well before stocks expire, as has occurred time and again with all other market commodities that may have faced depletion. That this has occurred despite the existence of government programs muting the market's signals suggests that the subsidies in Roodman's cross hairs are unlikely to cause the exhaustion of any resources. In any event, Roodman's concern about dwindling stocks of nonrenewable

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> resources rings as hollow as a temperance crusader's complaint that competition will put some liquor stores out of business.

"GOOD" SUBSIDY POLICY

DESPITE THE ACKNOWLEDGMENT THAT government intervention in the marketplace can often do more harm than good, Roodman is not ready to give up subsidies and mandates. Roodman's goal is not to remove market distortions by eliminating subsidies, but rather to reorient subsidies to his favored uses. Thus, he offers "Commonsense Principles of Good Subsidy Policy." For Roodman, subsidies are not an environmental problem, in and of themselves, despite their tendency to distort economic decisionmaking, encourage waste, and generate inefficient resource allocations. The very concept of what constitutes a subsidy seems beyond Roodman's grasp. "[N]o one can agree on what constitutes a subsidy: one person's special interest payoff is another's wise investment in the public good" (p. 31). "[J]udging subsidies is a highly political act" (p. 33), he argues. The only problem is that someone other than Roodman decided what to subsidize.

Roodman's solution to the market distortions and inefficiencies caused by government subsidies is not to reduce political interference in economic matters. Far from it. Roodman merely wants to transfer subsidy payments to those industries and subsidies he supports. Replacing subsidies for oil and coal with support for solar and wind. Yet, the subsidies Roodman advocates are vulnerable to three, if not all four, of the prongs of his indictment. Wind farms may not burn fossil fuels, but they tend to chop raptors and other birds to bits. For this reason, the National Audubon Society is fighting

> wind-farm construction in parts of California. Moreover, both solar and wind are far more landintensive than their fossilfuel counterparts. Displacing a substantial portion of fossil-fuel energy with wind or solar will require devoting thou-

sands of acres to energy production. All this is simply to say that it is unclear whether wind, solar, and other "alternative" energy sources should be heralded as environmentally pure. They merely substitute one set of environmental effects for those with which Roodman is more concerned now.

Roodman's confusion about subsidies is compounded in his discussions of the "natural wealth of nations" and how governments should capture this value. He argues that most governments "charge much less than they for publicly controlled could" resources, and labels this a subsidy. Instead of losing money on resource sales, he argues, "when governments decide to transfer public resources to companies or individuals, they should at least sell the resources for what they are worth on the open market" (p. 112). Yet, these conditions are not mutually exclusive. Roodman never seems to consider that governments are more than capable of selling resources at market value while still losing money; the U.S. government,

for one, does it all the time. A prime example is the sale of timber from national forests. The U.S. Forest Service spends more on its timber program than it generates from timber sales. Yet, most of the timber is auctioned off and sold at market rates. On the other hand, state land-trust agencies managing equivalent parcels sell timber at equivalent prices without losing money, and meet or exceed the environmental performance main-

tained in the national forests. Roodman's real objection, it seems as before, is not to the inefficiency of existing programs, or even to the federal government not getting its rightful share. Rather, it is to excessive logging, grazing, oil

drilling, and so on, and that increasing the costs of these activities will make them rarer. "From an environmental perspective," he declares, "what mainly harms the Earth is the basic decision to have trees cut, oil extracted, or rivers diverted" (p. 114). Calling for all resource sales at either actual costs or "market" rates, therefore, is simply a means to the end of reducing resource use overall.

MAKING POLLUTERS PAY

REFORMING SUBSIDIES IS AN IMPOR-TANT part of Roodman's program, but its essential core is "making the polluter pay," which in Roodman's formulation means making all resource users and residual emitters pay through the nose through a broad series of taxes on emissions, resource use, and land. It is simply not possible for nations to subsidize their way to sustainability. The costs would be too great and, more importantly, subsidies are not all that effective at spurring the development of environmentally sound technologies and practices. As Roodman is forced to concede, "in practice, unfortunately, technology development and commercialization subsidies have compiled a poor track record" (p. 135). In addition, regulatory strategies have proven themselves unable to meet Roodman's goals. For example, "energy is used in so many ways that government could never dictate through regulation all the changes that will be needed to ratchet down fossil fuel use" (p. 182). As a result, imposing environmental taxes "is ultimately the more effective" strategy.

The intellectual inspiration for Roodman's approach is the work of Arthur Cecil Pigou (as characterized by Mikael Skou Andersen, for Roodman never cites Pigou's work directly). Pigou argued that the ideal method for deal-

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ing with market externalities like pollution was to require that those who generate the externalities—the polluters—compensate those on whom they impose the externalities. When the externalities are generated by multiple sources, or are imposed on multiple people—so-called many-many problems—taxes take the place of the compensation payments. designed taxes would "internalize" the externality, forcing producers to take account of the social costs imposed by their actions. Such taxes are just and socially beneficial, according to Roodman, despite their regressive impact; "when it comes to environmental harm. it is economically better to tax than not to tax" (p. 149). The idea is to replace existing taxes on income and wealth accumulation with taxes on emissions and resource use. "Taken to their fullest extent, such taxes will engineer nothing less than another industrial revolution," Roodman proclaims (p. 170). This may be so. But if such a "revolution" occurs, emissions and resource use will plummet, leaving government treasuries devoid of revenue, and the offsetting tax cuts Roodman proposes will be eliminated. If Roodman wants governments to rely on environmental taxes, then he can't expect their effect on industrial production to be all that revolutionary.

THE GREEN CONCEIT

yet, this is hardly the largest flaw in Roodman's program, or other schemes to "harness" markets for environmental purposes. It was the fatal conceit of socialism, in Hayek's famous phrase, that wise government bureaucrats could guide society to a better future. Substituting red aspirations with green ones does not change the undertaking's essential nature—or its likelihood of success. Even were it possible to

insulate regulatory bureaucracies from the vagaries of interest-group pressures, the information required to guide ecological development from a central place is beyond any one regulator's—or regulatory agency's—grasp. Roodman's fatal

conceit is that he believes that giving these same bureaucrats an additional set of tools, in particular taxes and "good" subsidies, suddenly transforms their project from a futile effort to plan the unplannable into a readily achievable agenda for ecological nirvana.

Seeking to design a tax code that fully and accurately internalizes negative environmental externalities (forget the positive) is a fool's errand. This is a point Roodman should recognize. At the most basic level, "taxing pollution or resource depletion requires measuring it, and that is not always easy" (p. 171). And that is precisely the point. As Roodman concedes, "[S]etting taxes perfectly according to the economics textbooks" requires "impossibly detailed knowledge" (p. 171). In other words, an environmental tax regime faces the same information hurdles and obstacles as a traditional regulatory scheme. There is simply too much localized information about actual environmental effects for a central planner—or tax collector—to develop an accurate and efficient scheme.

Given the impossibility of a regime that *truly* internalizes externalities, by assessing taxes in direct proportion to the environmental costs imposed by various activities, any environmental tax scheme will operate by proxy, levying charges on particular resources and

activities regardless of an actual contribution to environmental effects. For example, a gas tax—or any fuel tax for that matter—is a very poor proxy for a tax on pollution. The same gallon of gasoline will produce differing amounts of emissions in different vehicles. Additionally, the emissions' actual environmental effect will vary from place to place. Taxing other fuels or industrial feedstocks will produce similar distortions, obviating the levy's environmental value.

The failings of Pigouvian tax schemes were well elucidated by Coase in "The Problem of Social Cost" and "Notes on the Problem of Social Cost." The externalities caused by emissions are, and will remain, highly time and

place specific. Benzene emissions from a factory located in the middle of nowhere are unlikely to impose any negative health externalities whatsoever. Should people start to live near the factory, however, the costs imposed by the factory's same emissions will increase, even though the factory's operations have not changed. Indeed, it is quite possible that a factory that reduced its emissions as more people took up residence nearby could actually be responsible for greater negative externalities. Under a perfect Pigouvian tax scheme, the factory's costs would rise, despite its reduced emissions. This is but one reason why Coase noted that it is not abundantly clear that the factory should be assessed fees for the externalities it imposes, while the new residents are not required to compensate the factory for the costs their arrival imposes. After all, had they not moved next door, the factory's costs would not have increased.

THE IMPORTANCE OF PROPERTY RIGHTS

Roodman, like most who call for "harnessing" the market, seeks to direct marketplace activity toward predetermined ends, failing to recognize that central-planning schemes are no better at priority setting and ends determination than at determining means. This is the

clear lesson of the failings of market socialism in Eastern Europe. By not recognizing the foundational role that property rights play in markets, and in generating the information on which markets depend, Roodman naively adopts the role of master planner as ably as the most fervent environmental regulator. Regulations may be replaced with taxes and quotas, but the central planning remains. Rather than supplement the regulator's toolbox with "mar-

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ket instruments," environmental protection will be better served by a greater reliance on market *institutions*, in particular property rights and exchange. To his credit, Roodman appears to have wrestled with the institutional obstacles to his program more than most who blithely call for "harnessing" the market or "greening" the tax code, but that does not make the agenda any more workable.

Property rights are the basis of markets, and they encourage the resource stewardship, conservation, and innovation that Roodman recognizes are necessary for environmental protection. In the simplest terms, market competition creates tremendous pressure to minimize costs, which means finding ways of doing more with less: producing more widgets with less material and energy. Thus, in market economies, we see a continued drop in the energy and materials necessary for a unit of industrial output. As a direct result of market institutions, people have learned to do more with less; to meet human needs while using fewer, and less scarce, natural resource inputs, and recovering materials for recycling or reuse when appropriate. This can be seen in the replacement of copper with fiber optics (made from silica- i.e., sand), the downsizing of computer circuitry, the lightweighting of packaging, the explosion of agricultural productivity, and so on. Proven reserves of oil and gas have increased sevenfold since 1950 because of the marketplace, not any government-led efforts at conservation.

Defenders of government intervention often maintain that the drive to reduce costs also leads to pollution as firms seek to externalize their production costs. This pressure is real, but it occurs only when property rights are insufficiently protected. Take the earlier

factory example. The factory is only able to impose pollution on its neighbors if it owns the right to do so. If, however, those rights are retained by the neighboring landowners—which, in most cases, they are—pollution will only be imposed if the factory and its neigh-

bors can reach an agreement whereby the neighbors are compensated for the pollution's cost. Existing regulations, which establish permits and thresholds for allowable pollution regardless of the damage imposed on private property, enable firms to externalize their costs. In a true market system, such externalization—that is, the involuntary imposition of waste streams by one party onto others—would be forbidden.

Establish property rights in environmental resources can certainly be difficult. For starters, there are tremendous legal and cultural barriers to the extension of market institutions in many areas. The technical requirements of property rights definition and enforcement are also substantial. It is one thing to create rights of instream water flows, as is done in many states; it is another to contemplate property rights of air or the deep seas. Yet, are these obstacles any more insurmountable than those Roodman asks governments to undertake? Unlikely. The question is, where are our energies to be focused: tinkering with politically managed environmental command and control, or building and enhancing the market's institutional capacity to address environmental problems? Central planning has clearly failed. It is time to give real market institutions a chance.