

seiners, natives and non-natives, sport fishers and commercial fishers, shoreworkers and fishers, Marchak becomes completely demoralized.

This tendency is most apparent in her account of a February 1984 workshop to which all industry groups except the union sent representatives to "hammer out a set of proposals for reviving the industry." Only a handful of fishers attended this meeting at a Vancouver Island resort. To Marchak's dismay, the UFAWU "sponsored a demonstration in Ottawa" during the same weekend.

The "demonstration" in this case was the three-day Fishermen's Survival Coalition lobby to Ottawa.

More than 100 fishers from every major industry group and every part of the coast travelled to Ottawa to meet with all three parties to oppose implementation of the Pearse report. It was the largest such effort in the history of the industry and, not surprisingly, the seminar went unnoticed. The conclusion seems obvious, but Marchak is unwilling to draw it. Despite the many "cleavages" of the industry, there is a strong majority support for certain basic principles advanced by the union.

The cornerstone of the coalition's campaign was the preservation of fisheries resources as the common property of the people of Canada. On this and many other issues, the UFAWU continues to win support far beyond its ranks, despite its stubborn insistence that its members are workers and that common property is not tragic.

This book would have been much stronger if it had concentrated on determining why this is so rather than seeking reasons why it should not be.

Vancouver

GEOFF MEGGS

Economics and the Environment: A Reconciliation, edited by Walter E. Block. Vancouver: Fraser Institute, 1989.

The heat of the argument is inversely proportional to the credibility of the facts.

It is both curious and lamentable that economists and environmentalists so often talk past each other. Curious because both groups are professionally trained to think in terms of systems where the components are linked together and everything depends more or less on everything else: atmospheric quality in the Canadian arctic depends upon sulphur emissions in Asia; a New York office building is structured of steel made in Luxembourg

and fabricated in Dallas. Lamentable because both groups can together contribute constructively to understanding shared problems which not only challenge each as scientists but are significantly in the public arena.

Economics and the Environment: A Reconciliation is a collection of ten articles representing a range of decentralized market-oriented (economic) approaches to environmental questions, as contrasted, for example, to “deep ecology” views which feature ethical reconstruction to support a “conservator society.”

The editor, Walter Block, sets the agenda in his Preface, in which he rejects both “let-her-rip” economic development and uncompromising environmentalism. He advocates “moderation,” with governments supporting “a legal system based strictly, and rigidly, on rights of private property,” in matters of environmental policy. Beyond this, governments are seen as ineffectual, misguided, and, in many cases, purposefully wasteful of environmental assets. (How else can one describe, for example, government subsidies for commercial fishing of already savaged fish stocks?)

The first chapter, *The Economics of the Conservator Society*, is also the longest (eighty-nine pages), and in some ways seems out of date. The authors attack the Science Council of Canada and the Gamma Group for positions articulated over a decade ago but which are still said to be representative of hard-core environmentalists. Two points are central here. First, a conservator society cannot compute values: for example, how much pollution production and abatement is “enough” relative to other economic goods that people want (or need)? Economics, for all its imprecision and lack of data, can compute an answer that balances costs and benefits in ways that people understand and accept. Many conservators will advocate zero tolerance for pollution on apparently “religious” grounds. Economists will hardly ever find that no pollution at all is economic.

Second, the conservator society rejects “free choice by those who do not share their values. They do more than urge others to change. They propose using the coercive power of the state to compel the change.” This alleged “environmental fascism” is generally rejected by economists trained in the liberal tradition of J. J. Rousseau and T. Jefferson who respect the values of informed citizens.

New environmental difficulties have been identified in the last decade (ozone depletion, global warming) and old ones found more pressing (photochemical smog, acid rain), and perhaps our perceptions of problems have become more acute and focused, our approaches more mature and our attitudes less polarized. Or, perhaps not.

The idea of “sustainable development,” articulated in reports such as *Our Common Future* (WCED, 1987), would be a more timely target than the “conservator society.”

The government as a trustee of environmental assets, as a surrogate for representing future generations and an instrument for trans-generational equity, is examined in the second chapter, and is found wanting. The discussion of the Alberta Heritage Savings Trust Fund will be especially interesting.

The next two chapters (3 and 4) carry on with questions of inter-temporal resource allocation and make the case that responsible behaviour is to be expected from people who must live with the consequences of their decisions: private persons, not bureaucrats or politicians. The misuse of land, water, forests, energy reserves, fish and wildlife resources is encouraged by governments who fail to define and enforce property rights in environmental assets. Private property rights permit people to use markets to their advantage and to enlarge the common wealth. But if there are environmental benefits to extending the scope of private ownership and control of environmental assets, and the services they provide, there are also economic costs. These can be lumped under the heading of “transactions costs”: defining characteristics of the property right (duration, divisibility, transferability), enforcing exclusivity (including abatement of the “free rider” problem), establishing reputations of both buyers and sellers so that contracts are credible. Nature conservation is given as an example. The Nature Conservancy Trust in the United States, The Woodland Trust in the United Kingdom, and organizations buying tropical rain forests to preserve them are cited as successful experiments in accommodating transactions costs and using private property to good effect.

Private property rights, or interests, in land are common and well understood. But what of atmospheric quality? Carbon dioxide (CO_2 is the chief “greenhouse gas” responsible for global warming), chlorofluorocarbons (CFCs are destructive of stratospheric ozone) and sulphur dioxide (SO_2 is a prominent source of “acid rain”) are deleterious by-products of industrial and transportation activity. These have “global” (at least transnational) effects of uncertain, but perhaps catastrophic, magnitude. Four chapters (5, 6, 8, and 9) analyze problems in the atmosphere, the “giant global commons.”

Chapter 5 reviews some of the scientific literature on global warming and ozone depletion. As presented, the scientific theory and evidence to support causal links between human activity and imminent catastrophic

consequences are strikingly weak and scientific opinion is mixed. There is insufficient evidence to discredit pessimistic predictions. What to do?

Abatement of greenhouse gas emissions would be extremely costly, denying the use of fossil fuel energy (releasing CO₂ previously sucked from the atmosphere by photosynthesis and entombed by geological forces) to a world economy needing energy to develop. Should China and India be denied economic development because the rich and wealthy fear some climatic change? (China and India are notable for having large and usable coal reserves.)

Ozone depletion is a more tractable problem. Its potential for damage is comparable to global warming and is possibly linked to it if photosynthesizing phytoplankton in the upper ocean are depleted by sea-level ozone. But the costs of abatement are almost trivial. CFCs are used, mostly in refrigeration, because they are cheap and safe in application. But their consumption, relative to fossil fuels, is negligible and there is the promise of ozone-friendly substitutes on the horizon. But as a global problem, a global solution is required.

The 1987 Montreal Protocol may provide a model for international action. It features national entitlements to CFC production, initially set on historical levels but falling. The protocol does *not* prescribe *how* the declining quota is to be met. This is important. Having set the quotas by agreement by *governments* the practical implementation of reduction is assigned (in the U.S. and Canada) to the *private sector* and to the market-place to generate incentives for economic substitution and for cost-effective research and development. The free-rider problem — a country reneges while enjoying the benefits anyway — is addressed by the threat of economic sanctions. The private sector ensures economic and voluntary realization of the targets as contrasted to police powers of the state enforcing costly bureaucratic and technocratic “solutions.”

Acid rain, as greenhouse gases, is concomitant with energy production from fossil fuels and so is costly to abate. Just now, it is a regional and transnational problem but may be globalized as large Asian economies develop. Acid rain is a complex Canadian problem. We produce it and also involuntarily import it from the U.S. Because there are many point sources of emissions of SO₂ (also nitrous oxides NO_x) and many parties which suffer the resulting acid rain, transaction costs are an economic barrier to voluntary agreements between involved parties. The market cannot be expected to effect a solution (pollutees paying polluters not to pollute and/or polluters compensating pollutees for their losses) and so there may be a role for collective action through governments. So far, these have tried

traditional “command and control” approaches which, because of political forces and the great cost involved, have been notably ineffective. But, as in the case of CFCs, the market-place and voluntary contracts promise a more economic way to meet emission standards. A market solution might be so inexpensive relative to traditional methods that electric power utilities, notable point sources of SO₂, may find that money spent reducing emissions to meet standards is less than money spent persuading governments to erode them.

Using the Montreal Protocol as a model, governments in the U.S. and Canada would agree, with expert advice, to regional emission quotas. These, in turn, would be allocated to the utilities, or their plants, based on their historical generation capacity. These quotas would be *marketable* so that emitters would have incentives to abate their emissions in order to get hard cash by selling their permits. Low-cost abaters will be eager to reduce emissions, selling their quotas to high-cost abaters who find it more economic to buy quotas than to buy expensive new equipment or to substitute cleaner fuels. This induces more production of “clean” electricity and less production of “dirty” electricity. In short, the regional quotas are met at least cost.

The quotas could be designed to “evaporate” at, say, 10 per cent per year for awhile. Yet more quotas could be retired if, for example, downwind Canadians bought quotas from upwind U.S. emitters. Exercising this option would reduce an apparently intractable Canada-U.S. diplomatic problem to one of simple market transactions.

A major advantage of marketable quotas is informational. So far, we really do not know the marginal cost of pollution abatement (value of emissions) to compare with putative downwind damage.

The penultimate chapter (9) is supposed to address air pollution too. In the event, it is a stimulating introduction to a growing branch of law and economics — libertarian legal theory. The “Chicago school” of legal theory has been popular with economists who think of the legal system as an institution for finding economic corrections (remedies) when markets fail. Ronald Coase, Harold Demsetz, and Richard Posner are representative of this approach.

By contrast, libertarian scholars hold that “every man is a self-owner, having absolute jurisdiction over his own body” and, by extension, over “whatever previously unowned resources he appropriates or mixes his labour with.” Self-ownership and “homesteading” are the “twin axioms” for the “system of property rights titles in a free market society.” From these axioms, libertarians hold to the doctrine of strict liability (a person is liable

for damages even if “due care” has been exercised) and “the liability must be proven on the basis of strict causality of the defendant’s action against the plaintiff and it must be proven beyond a reasonable doubt.” These seem to rule out economic outcomes in the courts since some “due care” by victims is often efficient. Also, legal action against producers of acid rain would not succeed if only because “strict causality” is not now technologically feasible.

It is not required to read the entire volume to understand the kernel of the message — free markets can play a constructive role in solving environmental problems if only governments would give them a chance. The message, complete with examples, is conveyed by Block’s excellent Introduction and his Chapter 10, which concludes the book. I also liked Chapter 7 on “chemophobia” for readable illustrations of ideas which run through the book.

Readers who have a particular interest in local environmental issues will be disappointed — examples are drawn from many countries. References to environmental law and enforcement are drawn mainly from the United States. This is too bad for Canadian readers, because our institutions for environmental management are significantly different in concept and in practical application.

A word of caution. Professional economists may share objectives with environmentalists, or not. I think that a great many do, if only because they recognize that markets in environmental assets are imperfect and incomplete. Economists will differ on practical methods to overcome these market failures. This book represents one coherent economic approach with an arguable claim to generally constructive application. It is a positive contribution to an ongoing market in dialogue and debate on economics and the environment.

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Recollecting Our Lives: Women’s Experience of Childhood Sexual Abuse, by the Women’s Research Centre. Vancouver: Press Gang Publishers, 1990. Pp. 272. \$14.95 paper.

This book is the result of a collaborative effort of several women and the Women’s Research Centre. Their work was aided by funds from Health and Welfare Canada and the Department of the Secretary of State of Canada. The basis of the book is a set of interviews with seventeen women