

# S Y L L A B U S

## **FREE MARKET**

## **ENVIRONMENTALISM**

Prepared by  
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# FREE MARKET ENVIRONMENTALISM

## SYLLABUS

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### INTRODUCTION

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In 1991, Terry Anderson and Donald Leal released *Free Market Environmentalism*. The book's notion that free markets could protect the environment as well as or better than government if property rights institutions were in place challenged conventional thinking. In the past, environmental policy had always been viewed as an example of market failure. Anderson and Leal claimed that this was not the case and offered examples of alternatives to prove it.

Since the book's release, it has been used as a curriculum in universities from Stanford to Harvard to Purdue to Tulane. Many professors, however, were cautious in its use because they were not sure how to work free market environmentalism (FME) into the traditional curriculum. And so, with the release of a new edition of *Free Market Environmentalism* (Palgrave, 2001), PERC has created a syllabus to aid the inclusion of free market environmental ideas in to traditional environmental economics and policy curricula.

The syllabus can be used in two ways: it can be implemented as a course on free market environmentalism or incorporated into a standard environmental economics or environmental policy course to convey aspects of free market methods.

The syllabus is broken down into thirteen blocks. Each block includes a chapter from the new version of *Free Market Environmentalism*, as well as supplemental readings. These blocks can be taught in order, from one through thirteen, as a thirteen-week course on free market methods. Alternatively, several blocks can be combined into a single lesson if time requires. The blocks are grouped by subject area, allowing for their use as supplemental lessons to traditional environmental economics courses. Some readings are repeated in different blocks because of applicability in different areas. This ensures that teachers utilizing only portions of the syllabus will not miss out on relevant readings.

The syllabus assumes that educators are familiar with the old way of teaching environmental economics and policy and, therefore, does not include readings for such a course. It does, however, recognize that teachers of traditional environmental economics might not be familiar with readings that offer specific criticisms of free market environmentalism. Thus, several such readings are provided in block thirteen. Many of the supplemental readings can be found at [www.perc.org/syllabus](http://www.perc.org/syllabus).

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# FREE MARKET ENVIRONMENTALISM

## SYLLABUS

### Block 1: Environmental Tragedies

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**OBJECTIVE:** To explain traditional causes of environmental harms including the Malthusian worldview, the tragedy of the commons, and the problem of imperfect information. Neither government nor markets lead to a utopian solution; thus their real world counterparts should be compared when forming public policy.

#### CHAPTER 1: Visions of the Environment

##### SUPPLEMENTAL READINGS:

Anderson, Terry L. 1982. The New Resource Economics: Old Ideas and New Applications. *American Journal of Agricultural Economics* 64(5): 928–34.

Anderson differentiates the old environmental economics paradigm from the new one developing.

Bailey, Ronald. 2000. The Progress Explosion: Permanently Escaping the Malthusian Trap. In *Earth Report 2000*, ed. Ronald Bailey. New York: McGraw-Hill, 1–21.

Bailey discusses the difference between the traditional Malthusian worldview that human population will grow faster than the planet can provide for it with the New Growth Theory view that humans can live on Earth sustainably thanks to new technology and their creative use of resources.

Gordon, H. Scott. 1953. The Economic Theory of a Common Property Resource: The Fishery. *Journal of Political Economy* 62(April): 124–42.

Gordon outlines the common pool problem through a discussion of fisheries and how a tragedy of the commons arises.

Gordon, Scott. 1958. Economics and the Conservation Question. *Journal of Law and Economics* 1: 110–21.

Gordon discusses the basic economic theory of the conservation problem. Conservation is an investment, and like all investment, it provides for the future by sacrificing in the present. There is, however, a commons problem; but if it is solved through internalizing the costs and benefits of activity, then sustainable use will occur.

Hardin, Garrett. 1968. The Tragedy of the Commons. *Science* (December): 1243–48.

Hardin explains how resources that lack ownership also lack stewardship.

Hayek, Friedrich A. 1945. The Use of Knowledge in Society. *American Economic Review* 35(4): 519–30. Online: <http://www.virtualschool.edu/mon/Economics/HayekUseOfKnowledge.html>.

This seminal essay discusses the importance of time- and place-specific information and how central planners are unable to anticipate all possible conditions that might arise. It emphasizes the importance of decentralizing decisions.

Ostrom, Elinor. 1990. *Governing the Commons*. Cambridge, England: Cambridge University Press, 1–28.

Ostrom discusses a third option for managing resources other than public or private ownership: pooled ownership.

## **Block 2: Political Environmentalism vs. Market Environmentalism**

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**OBJECTIVE:** Illustrate the difference between the tax and regulatory systems of government solutions to environmental problems and the market solutions of free market environmentalism. Continue exploring the importance of time and place specific information and begin the discussion of property rights and their importance to the free market paradigm.

### CHAPTER 2: Rethinking the Way We Think

#### SUPPLEMENTAL READINGS:

Adler, Jonathan H. 2000. Clean Politics, Dirty Profits: Rent-Seeking behind the Green Curtain. In *Political Environmentalism*, ed. Terry L. Anderson. Stanford, CA: Hoover Institution Press, 1–30.

Adler documents cases of private interests using the cover of environmental interests to divert political capital. He concludes that the environmental movement can also suffer from self-interest.

Anderson, Terry L., and Donald R. Leal. 1992. Free Market Versus Political Environmentalism. *Harvard Journal of Law & Public Policy* 15(2): 297–310.

Anderson and Leal advocate the free market approach to environmental problems as an alternative to the current system of government management. The authors argue that government does not necessarily maximize social welfare, as is frequently assumed, while pointing out that free market environmentalism recognizes human behavior as affected by incentives and positive information costs.

De Alessi, Louis. 1998. Private Property Rights as the Basis for Free Market Environmentalism. In *Who Owns the Environment?* ed. Peter J. Hill and Roger E. Meiners. Lanham, MD: Rowman & Littlefield, 1–35.

De Alessi compares government ownership to private ownership. He relates the two to the environment to demonstrate the importance of private property rights in a free market environmental paradigm.

Norton, Seth. 1997. Property Rights, the Environment, and Economic Well-Being. In *Who Owns the Environment?* ed. Peter J. Hill and Roger E. Meiners. Lanham, MD: Rowman & Littlefield, 37–54.

Norton links strong property rights systems and environmental quality.

Yandle, Bruce. 1998. Coase, Pigou, and Environmental Rights. In *Who Owns the Environment?* ed. Peter J. Hill and Roger E. Meiners. Lanham, MD: Rowman & Littlefield, 120–26.

Yandle explains environmental problems as conflicts among users. This important concept is the basis for his explanation between a Coasean (free market) environmental world and a Pigouvian (government regulation and taxing) environmental world.

Yandle, Bruce. 2000. Public Choice and the Environment: From the Frying Pan to the Fire. In *Political Environmentalism*, ed. Terry L. Anderson. Stanford, CA: Hoover Institution Press, 31–59.

Yandle asks why accomplishing fairly simple goals like pollution control are difficult in the collective decision-making process of politics and fairly easy in private decision making.

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## **Block 3: Property Rights and the Environment**

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**OBJECTIVE:** Summarize how property rights form and how they evolve and examine whether political systems or market systems are more forward-looking regarding environmental decision making.

### **CHAPTER 3: From Free Grass to Fences CHAPTER 4: From Barbed Wire to Red Tape**

#### **SUPPLEMENTAL READINGS:**

Anderson, Terry L., and Peter J. Hill. 1996. Appropriable Rents from Yellowstone Park: A Case of Incomplete Contracting. *Economic Inquiry* 34(3): 506–19.

Anderson and Hill document how the railroads, rather than forward-thinking conservationists, pushed for the creation of Yellowstone National Park. The railroads hoped to profit from Yellowstone as the only means of transportation to reach it.

Anderson, Terry L., and P. J. Hill. 1975. The Evolution of Property Rights: A Study of the American West. *Journal of Law and Economics* 18(1): 163–79.

Anderson and Hill establish how property rights developed in the American West at the latter half of the nineteenth century.

Anderson, Terry L., and Donald R. Leal. 1997. Barons of Preservation. In *Enviro-Capitalists: Doing Good While Doing Well*. Lanham, MD: Rowman & Littlefield, 21–41.

This chapter examines the efforts of different entrepreneurs throughout history who worked to save the environment, often despite government attempts to thwart their efforts.

Christainsen, Gregory B., and Brian C. Gothberg. 2001. The Potential of High Technology for Establishing Tradable Rights to Whales. In *The Technology of Property Rights*, ed. Terry L. Anderson and Peter J. Hill. Lanham, MD: Rowman & Littlefield, 101–21.

Christainsen and Gothberg apply genetic tagging and satellite tracking to create property rights in whales.

Demsetz, Harold. 1967. Towards a Theory of Property Rights. *American Economic Review* 57(347): 347–59.

Demsetz argues that the creation of property rights responds to the economic calculus of marginal benefits and marginal costs.

Gerard, David. 2000. The Origins of the Federal Wilderness System. In *Political Environmentalism*, ed. Terry L. Anderson. Stanford, CA: Hoover Institution Press, 211–38. Online: <http://www.perc.org/pltcenv6.pdf>

Gerard documents how the wilderness system arose out of a battle between the Department of Agriculture and the Department of Interior for more land in their respective domains.

## **Block 4: Government vs. the Environment**

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**OBJECTIVE:** Show that government agencies are susceptible to mistakes that harm the environment.

### **CHAPTER 5: Bureaucracy Versus Environment—The Beat Goes On**

#### **SUPPLEMENTAL READINGS:**

Brown, Matthew. 2002. Banking on Disaster: The World Bank and Environmental Destruction. In *Government Versus the Environment*, ch. 8, ed. Donald R. Leal and Roger E. Meiners. Lanham, MD: Rowman & Littlefield, forthcoming.

Brown documents environmental harms caused by the World Bank's investment programs, including its work on the Sardar Sarovar dam in India.

Fretwell, Holly Lippke. 2000. Federal Estate: Is Bigger Better? *Public Lands III*. Bozeman, MT: PERC, May. Online: <http://www.perc.org/pl3.pdf>

Fretwell compares the stewardship mechanisms and records of federal and private lands.

Fretwell, Holly Lippke. 1999. Forests: Do We Get What We Pay for? *Public Lands II*. Bozeman, MT: PERC, July. Online: <http://www.perc.org/pl2.htm>

Fretwell examines the health of state and private forests compared to the health of federal holdings. She finds that state and private lands (which are accountable to revenue-making) are in better condition than federal forests.

Grewell, J. Bishop. 2002. War on Wildlife. In *Government Versus the Environment*, ch. 6, ed. Donald R. Leal and Roger E. Meiners. Lanham, MD: Rowman & Littlefield, forthcoming.

Grewell documents the long history of government's attempts to destroy wildlife, often in direct conflict with private conservation efforts to save animals.

Lueck, Dean. 2000. The Law and Politics of Federal Wildlife Preservation. In *Political Environmentalism*, ed. Terry L. Anderson. Stanford, CA: Hoover Institution, 61–119.

Lueck explores the history of wildlife management in the United States. He notes how the Endangered Species Act has parted ways with traditional management and led to perverse incentives that harm wildlife.

Roberts, Paul. 1999. The Sweet Hereafter: Florida's Everglades Endangered by Sugar Industry. *Harper's Magazine*, November.

Roberts exposes how the sugar lobby plays both political parties to keep a sugar subsidy that has damaged the ecosystem of Florida's Everglades.

## **BLOCK 5: Wildlife and Recreation in the Marketplace**

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**OBJECTIVE:** Examine recreation and wildlife issues in both the political and free market contexts. Define how changing institutions and property rights can solve problems of recreation and wildlife management.

### **CHAPTER 6: Inside Our Outdoor Policy**

#### **SUPPLEMENTAL READINGS:**

Fretwell, Holly Lippke. 1998. Public Lands: The Price We Pay. *Public Lands I*. Bozeman, MT: PERC, August. Online: <http://www.perc.org/pl1.htm>

Fretwell explores grazing, mining, timber harvest, and recreation on federal lands. She finds recreation is the biggest loser of the four for the federal treasury.

Gardner, B. Delworth. 1997. The Political Economy of Public Land Use. *Journal of Agricultural and Resource Economics* 22: 12–29.

Gardner argues that historical use preferences and continued rent seeking have produced use entitlements that ignore changing costs and demands on public lands. This leads to large wealth losses for consumers and taxpayers. Gardner argues that simulated market processes could replace political allocations and improve efficiency.

Grewell, J. Bishop. 1999. *International Paper's Wildlife and Recreation Program*. Case Study BP-269. Stanford, CA: Stanford University Graduate School of Business, December.

This case study details how biologist Tom Bourland convinced International Paper to manage for quality wildlife and recreation on its timberlands by changing the incentives.

James, Stephanie Presber. 2001. An Institutional Approach to Protected Area Management Performance. In *The Politics and Economics of Park Management*, ed. Terry L. Anderson and Alexander James. Lanham, MD: Rowman & Littlefield, 1–27.

James sets forth an institutional structure for analyzing national parks and their management.

Kreuter, Urs P., and Randy T. Simmons. 1995. Who Owns the Elephants? The Political Economy of Saving the African Elephant. In *Wildlife in the Marketplace*, ed. Terry L. Anderson and Peter J. Hill. Lanham, MD: Rowman & Littlefield, 147–65.

In their critique of international wildlife policy, Kreuter and Simmons determine that the trade ban on ivory may actually hurt elephant populations by encouraging poachers.

Lueck, Dean. 2000. The Law and Politics of Federal Wildlife Preservation. In *Political Environmentalism*, ed. Terry L. Anderson. Stanford, CA: Hoover Institution Press, 61–119.

Lueck explores the history of wildlife management in the United States. He notes how the Endangered Species Act has parted ways with traditional management and led to perverse incentives that harm wildlife.

't Sas-Rolfes, Michael, and Peter W. Fearnhead. 2001. New Management Strategies for Kruger National Park. In *The Politics and Economics of Park Management*, ed. Terry L. Anderson and Alexander James. Lanham, MD: Rowman & Littlefield, 127–37.

't Sas-Rolfes and Fearnhead put forth Kruger National Park in South Africa as a case study for better management of national parks. They discuss Kruger's history, how this affects management decisions, and then suggest ways to change management for the better.

't Sas-Rolfes, Michael. 1998. Who Will Save the Wild Tiger? *PERC Policy Series*, PS-12. Bozeman, MT: PERC, December. Online: <http://www.perc.org/ps12.htm>

't Sas-Rolfes advocates market mechanisms for saving tigers throughout the world.

## Block 6: Energy and Trade-offs

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**OBJECTIVE:** Consider energy policy, oil drilling, and trust management. Demonstrate that drilling for oil can help the environment when drilling funds are directed to other areas of conservation. Show how the use of trust management can provide an able tool for managing federal and state lands when privatization is not an option.

### CHAPTER 7: Ecology and Energy: Prospecting for Harmony

#### SUPPLEMENTAL READINGS:

Anderson, Terry L., and Holly Lippke Fretwell. 1999. A Trust for Grand Staircase-Escalante. *PERC Policy Series*, PS-16. Bozeman, MT: PERC, September. Online: <http://www.perc.org/ps16.pdf>

Anderson and Fretwell outline a proposal for trust management of the Grand Staircase-Escalante National Monument in Utah.

Baden, John, and Richard Stroup. 1981. Saving the Wilderness: A Radical Proposal. *Reason* 13(July): 28–36.

Baden and Stroup document how the Audubon Society's Rainey Preserve balanced environmental protection with oil drilling on its bird refuge. They discuss how the deal made by Audubon helped the environmental organization forward environmental protection.

Diamond, Jared. 1999. Paradise and Oil. *Discover*, March, 94–102.

Diamond details how litigious tribesmen have dealt with Chevron drilling for oil in New Guinea.

Libecap, Gary, D. 1989. Contracting for the Unitization of Oil Fields. *Contracting for Property Rights*. Cambridge, England: Cambridge University Press, 93–114.

Libecap illustrates that overcapitalization occurs in oil fields due to a race for ownership because ownership is only given through capture. This race for rights leads to social losses from the overcapitalization. Unitization might be able to solve the problem.

Rauch, Jonathan. 2001. The New Old Economy: Oil, Computers, and the Reinvention of the Earth. *Atlantic Monthly*, January, 35–49. Online: <http://www.theatlantic.com/issues/2001/01/rauch.htm>

Rauch explains how technology is expanding the world's energy supply through better techniques of exploring for fossil fuels.

Stroup, Richard, and John Baden. 1982. Endowment Areas: A Clearing in the Policy Wilderness? *Cato Journal* 2(Winter): 91–108.

Stroup and Baden illustrate that endowment boards could manage wilderness areas for the federal government.

Taylor, Jerry, and Peter VanDoren. 2000. Soft Energy Versus Hard Facts: Powering the Twenty-First Century. In *Earth Report 2000*, ed. Ronald Bailey. New York: McGraw-Hill, 115–54.

Taylor and VanDoren research the economic applicability of alternatives to fossil fuels. They discuss whether we are in danger of running out of fossil fuels.

## Block 7: Water Markets

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**OBJECTIVE:** Assess markets as an institutional mechanism for allocating water to fish while also providing water to municipalities and agricultural areas.

### CHAPTER 8: Priming the Invisible Pump

#### SUPPLEMENTAL READINGS:

Anderson, Terry L. 1995. Water Options for the Blue Planet. In *True State of the Planet*, ed. Ronald Bailey. New York: Free Press, 267–94.

Anderson writes on the global water crisis, providing facts and figures about it, as well as an answer on how to solve it.

Anderson, Terry L., and Pamela S. Snyder. 1997. *Priming the Invisible Pump*. PERC Policy Series, PS-9. Bozeman, MT: PERC, February. Online: <http://www.perc.org/ps9.htm>

Anderson and Snyder examine how markets can ward off the threat of water shortages. They discuss steps being taken to allow freer trade in water.

Landry, Clay J. 1998. *Saving Our Streams through Water Markets: A Practical Guide*. Bozeman, MT: PERC. Online: <http://www.perc.org/sos.pdf>

Landry explains how to purchase water for instream flows to help fish and the environment. He looks at the laws in the western United States and how they affect water markets.

Landry, Clay J. 2000. Agriculture and Water Markets in the New Millennium. *Water Resources IMPACT*, May, 13–14.

This short article gives an overview of the problems facing water allocation and how markets can solve them with respect to agriculture, municipalities, and the environment.

Thompson, Barton H., Jr. 1993. Institutional Perspectives on Water Policy and Markets. *California Law Review* 81(3): 671–764.

Thompson argues that the institutions governing water policy have exacerbated environmental problems. The piece explores the use of markets to improve both efficiency and environmental goals in the distribution of water by studying local institutions that

have created internal markets to enable the transfer of water to its highest use.

Willey, Zach. 1992. Behind Schedule and Over Budget: The Case of Markets, Water, and Environment. *Harvard Journal of Law & Public Policy* 15(2): 391–425.

Willey, an economist for Environmental Defense, argues that markets for water quantity and quality could improve environmental protection and resource allocation, but currently too many political and institutional barriers block water policies based on market incentives. He provides suggestions for removing these barriers.

## **Block 8: Oceans and Fisheries**

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**OBJECTIVE:** Discuss the environmental damage occurring to the world's fisheries and put forth individual tradable quotas (ITQs) as a possible solution.

### **CHAPTER 9: Homesteading the Oceans**

#### **SUPPLEMENTAL READINGS:**

Agnello, Richard, and Lawrence P. Donnelley. 1975. Property Rights and Efficiency in the Oyster Industry. *Journal of Law and Economics* 18: 521–33.

Agnello and Donnelley compare differing institutions among U.S. East and Gulf Coast oyster fisheries. They find that open access (or communal property rights) has an adverse impact on labor productivity when compared to private property rights.

De Alessi, Michael. 1998. *Fishing for Solutions*. IEA Studies on the Environment #11. London: Institute of Economic Affairs.

De Alessi catalogs the state of the world's fisheries and discovers that current catches in many fisheries are unsustainable. He promotes the use of individual tradable quotas as a possible solution.

Fujita, Rodney M., D. Douglas Hopkins, and W. R. Zach Willey. 1996. Creating Incentives to Curb Overfishing. *Forum for Applied Research and Public Policy* 11(2): 29–35. Online: <http://www.environmentaldefense.org/programs/Oceans/ITQs/forum.html>

These authors from Environmental Defense advocate ITQs for fisheries management to ensure the long-term sustainability of fisheries.

Gordon, H. Scott. 1953. The Economic Theory of a Common Property Resource: The Fishery. *Journal of Political Economy* 62(April): 124–42.

Gordon outlines the common pool problem through a discussion of fisheries and how a tragedy of the commons arises.

Leal, Donald R. 2000. Homesteading the Oceans: The Case for Property Rights in U.S.

Fisheries. *PERC Policy Series*, PS-19. Bozeman, MT: PERC, August. Online: <http://www.perc.org/ps19.pdf>

Leal categorizes the health of fisheries in the U.S. and abroad. He finds that the global use of ITQs is successful, but the U.S. system is not. He proposes a way to bring ITQs to the United States.

Libecap, Gary D. 1989. Contracting in Fisheries. *Contracting for Property Rights*. Cambridge, England: Cambridge University Press, 73–86, 90–92.

Libecap writes about how fishermen who succeed under status quo fishery management oppose changing the institutional rules until depletion has occurred. Contracting might be able to fix the problem of a depleting fishery, but the entrenched interests oppose change through the political process.

Johnson, Ronald N., and Gary D. Libecap. 1982. Contracting Problems and Regulation: The Case of the Fishery. *American Economic Review* 12(December): 1005–22.

Johnson and Libecap find that sole ownership or trade association management of a fishery could give the most efficient and environmentally sound management but such options have been ruled illegal as a monopoly under the Sherman Act. They discover problems from diversely skilled fishermen trying to contract in the fishery. Different skills lead to different wants.

## **Block 9: Marketing Garbage**

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**OBJECTIVE:** Show how the market system can allocate resources to solve pollution problems.

### **CHAPTER 10: Marketing Garbage: The Solution to Pollution**

#### **SUPPLEMENTAL READINGS:**

Adler, Jonathan H. 2000. Making the Polluter Pay. In *Ecology, Liberty & Property*, ed. Jonathan H. Adler. Washington, DC: Competitive Enterprise Institute, 139–48. Online: <http://www.cei.org/books/FMEreaderMAKINGPOLLUTERS.html>

Adler criticizes environmental pollution laws for authorizing regulatory standards rather than making sure that no one is harmed by polluters. He offers insights on how modern statutory law has prevented the common law from solving pollution problems.

Bate, Roger. 2000. Protecting English and Welsh Rivers: The Role of the Anglers' Conservation Association. In *The Common Law and the Environment*, ed. Roger E. Meiners and Andrew P. Morriss. Lanham, MD: Rowman & Littlefield, 86–106.

Bate replays the history of the Anglers' Conservation Association in England and how it used the common law to protect water quality on English and Welsh Rivers.

Boerner, Christopher, and Kenneth Chilton. 1994. False Economy: The Folly of Demand-Side Recycling. *Environment* 36(1): 6–18.

Boerner and Chilton write that recycled content laws, which try to increase demand, involve increased expenditure and fail to deliver the promised benefits.

Desrochers, Pierre. 2000. Eco-Industrial Parks: A Case for Private Planning. *PERC Research Study*, RS 00-1. Bozeman, MT: PERC. Online: <http://www.perc.org/rs1.pdf>

Desrochers finds that the marketplace leads to efficient recycling of industrial waste when allowed to operate without interference.

Epstein, Richard. 1982. The Principles of Environmental Protection: The Case of Superfund. *Cato Journal* 2(1): 1–34.

Epstein documents the legal aspects of Superfund and the poor incentives created by Superfund laws. He offers an alternative.

Goklany, Indur M. 2000. Empirical Evidence Regarding the Role of Nationalization in Improving U.S. Air Quality. In *The Common Law and the Environment*, ed. Roger E. Meiners and Andrew P. Morriss. Lanham, MD: Rowman & Littlefield, 27–53.

Goklany summarizes the data regarding U.S. air quality and finds that air quality was improving long before the statutory laws of the 1970s.

McGee, Robert W. 1993. Superfund: It's Time for Repeal after a Decade of Failure. *UCLA Journal of Environmental Law and Policy* 12(1): 165–82.

McGee contends that the Superfund program to clean up toxic waste has not only failed to clean up the environment, but has harmed the environment. He finds the National Priority List's hazardous waste site ranking system flawed. The response time to clean up hazardous waste sites is too long, the hazardous waste at the sites is not treated, and the costs of the program are excessive.

Meiners, Roger E., and Bruce Yandle. 1998. The Common Law: How it Protects the Environment. *PERC Policy Series*, PS-13. Bozeman, MT: PERC, May. Online: <http://www.perc.org/ps13.htm>

Meiners and Yandle assess the common law's history of protecting the environment by making polluters pay. They compare the advantages and disadvantages of common vs. statutory law.

Scarlett, Lynn. 2000. Doing More with Less: Dematerialization—Unsung Environmental Triumph? In *Earth Report 2000*, ed. Ronald Bailey. New York: McGraw-Hill, 41–62.

Scarlett points to the reduction in waste that market competition has encouraged with examples such as how a single compact disc can carry 90 million phone numbers, the equivalent of what once took five tons of phone books.

Scarlett, Lynn, Richard McCann, Robert Anex, and Alexander Volokh. 1997. *Packaging, Recycling, and Solid Waste*. Policy Study 223. Los Angeles: Reason Public Policy Institute.

This study finds that some recycling is worth the cost, but not all.

Schoenbrod, David. 1997. Why States, Not EPA, Should Set Pollution Standards. In *Environmental Federalism*, ed. Terry L. Anderson and Peter J. Hill. Lanham, MD; Rowman & Littlefield, 259–70.

Schoenbrod presents the argument for environmental federalism in pollution control.

Schoenbrod, David. 2000. Protecting the Environment in the Spirit of the Common Law. In *The Common Law and the Environment*, ed. Roger E. Meiners and Andrew P. Morriss. Lanham, MD: Rowman & Littlefield, 3–24.

Schoenbrod argues for environmental pollution control that relies on increasing state rather than federal involvement and for standards or rules set by legislators instead of administrative agencies.

Yandle, Bruce. 1998. Coase, Pigou, and Environmental Rights. In *Who Owns the Environment?* ed. Peter J. Hill and Roger E. Meiners. Lanham, MD: Rowman & Littlefield, 120–26.

Yandle explains how environmental problems are really conflicts among users. This important concept is the basis for his explanation of the difference between a Coasean environmental world and a Pigouvian environmental world.

Yandle, Bruce, and David Riggs. 1997. Environmental Quality, Biological Envelopes, and River Basin Markets for Water Quality. In *Water Marketing—The Next Generation*, ed. Terry L. Anderson and Peter J. Hill. Lanham, MD: Rowman & Littlefield, 147–66.

Yandle and Riggs offer effluent fees in Germany and the Tar-Pamlico River Basin Association in North Carolina as different ways to reduce water pollution.

## **BLOCK 10: Communities: A Third Way**

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**OBJECTIVE:** Explain how communities can provide an institutional framework for solving environmental problems and the tragedy of the commons.

### **CHAPTER 11: Calling on Communities**

#### **SUPPLEMENTAL READINGS:**

Anderson, Terry L., and Donald R. Leal. 1997. Community Spirit. In *Enviro-Capitalists: Doing Good While Doing Well*. Lanham, MD: Rowman & Littlefield, 149–65.

Anderson and Leal reveal examples of community solutions to environmental problems from fisheries to the CAMPFIRE program in Africa.

Getz, Wayne M., Louise Fortmann, David Cumming, Johan du Toit, Jodi Hilty, Rowan Martin, Michael Murphree, Norman Owen-Smith, Anthony M. Starfield, and Michael I. Westphal. 1999. Sustaining Natural and Human Capital: Villagers and Scientists. *Science* 283(5409): 1855.

This short article from *Science* magazine analyzes the success of community-run programs in Africa for maintaining wildlife populations, primarily elephants.

Leal, Donald R. 1996. *Community-Run Fisheries: Avoiding the Tragedy of the Commons*. *PERC Policy Series*, PS-7. Bozeman, MT: PERC, September. Online: <http://www.perc.org/ps7.htm>

Leal finds that community management using social norms and internal management can protect fisheries.

Ostrom, Elinor. 1990. *Governing the Commons*. Cambridge, England: Cambridge University Press, 1–28.

Ostrom discusses a third option for managing resources beyond public or private ownership: pooled ownership.

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## Block 11: Global Environmentalism

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**OBJECTIVE:** Scrutinize the proliferation of environmental treaties since the 1970s and ask what makes for a global issue. Discuss global warming.

### CHAPTER 12: Taking Free Market Environmentalism Global

#### SUPPLEMENTAL READINGS:

Aron, William, William Burke, and Milton Freeman. 1999. Flouting the Convention. *The Atlantic Monthly*, May, 22–29. Online: <http://www.theatlantic.com/issues/99may/9905whaling.htm>

Aron, Burke, and Freeman discuss the International Whaling Convention and how politics has subverted science in the IWC.

Anderson, Terry L., and J. Bishop Grewell. 2000. The Greening of Foreign Policy. *PERC Policy Series*, PS-20. Bozeman, MT: PERC, December. Online: <http://www.perc.org/ps20.pdf>

Anderson and Grewell unveil how foreign policy is beginning to include environmental agendas. They find problems that may be associated with it, and provide guidelines for what environmental issues should and should not fall under international policy making.

Goklany, Indur. 1995. Richer is Cleaner: Long-Term Trends in Global Air Quality. In *The True State of the Planet*, ed. Ronald Bailey. New York: Free Press, 339–77.

Goklany shows how wealthier countries produce better air quality.

Morris, Julian. 2000. International Environmental Agreements: Developing Another Path. In *The Greening of U.S. Foreign Policy*, ed. Terry L. Anderson and Henry I. Miller. Stanford, CA: Hoover Institution Press, 267–302.

Morris analyzes what makes a successful international environmental treaty.

Nordhaus, William. 1990. Greenhouse Economics: Count before You Leap. *Economist*, July 7, 20–24.

Nordhaus advocates cost-benefit analysis in examining climate change policy.

Rabkin, Jeremy. 2000. The Value of Sovereignty and the Costs of Global Environmentalism. In *The Greening of U.S. Foreign Policy*, ed. Terry L. Anderson and Henry I. Miller. Stanford, CA: Hoover Institution Press, 1–30.

Rabkin argues that global environmental policies threaten U.S. sovereignty.

Schelling, Thomas. 1992. Some Economics of Global Warming. *American Economic Review* (March): 1–15.

Schelling debates the impact of the greenhouse effect and the cost of abatement.

Yandle, Bruce. 1998. Bootleggers, Baptists, and Global Warming. *PERC Policy Series*, PS-14. Bozeman, MT: PERC, November. Online: <http://www.perc.org/ps14.pdf>

Yandle revisits the Kyoto Protocol on global warming. He questions whether the agreement is concern about the environment or political actors trying to secure political gains.

## **Block 12: Practical Applications of Free Market Environmentalism**

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**OBJECTIVE:** Explore incremental ways of bringing current institutions closer to free market institutions. Survey pragmatic uses of free market environmentalism that do not require massive institutional changes.

### **Chapter 13: Purity Versus Pragmatism**

#### **SUPPLEMENTAL READINGS:**

Fitzgerald, Tim. 2000. Federal Land Exchanges: Let's End the Barter. *PERC Policy Series*, PS-18. Bozeman, MT: PERC, June. Online: <http://www.perc.org/ps18.pdf>

Fitzgerald finds the barter system highly inefficient for land exchanges. It hinders many exchanges that would otherwise occur if simple cash arrangements were used.

Fretwell, Holly Lippke. 1999. Paying to Play: The Fee Demonstration Program. *PERC Policy Series*, PS-17. Bozeman, MT: PERC, December. Online: <http://www.perc.org/ps17.pdf>

Fretwell documents the success of the fee demonstration program for federal agencies, including the national park system. She offers a few suggestions for improving the user fees program.

Fujita, Rodney M., D. Douglas Hopkins, and W. R. Zach Willey. 1996. Creating Incentives to Curb Overfishing. *Forum for Applied Research and Public Policy* 11(2): 29–35. Online: <http://www.environmentaldefense.org/programs/Oceans/ITQs/forum.html>

These authors from Environmental Defense advocate ITQs for fisheries management to ensure the long-term sustainability of fisheries.

Getz, Wayne M., Louise Fortmann, David Cumming, Johan du Toit, Jodi Hilty, Rowan Martin, Michael Murphree, Norman Owen-Smith, Anthony M. Starfield, and Michael I. Westphal. 1999. Sustaining Natural and Human Capital: Villagers and Scientists. *Science* 283(5409): 1855.

This short article from *Science* magazine explores the success of community-run programs in Africa in maintaining wildlife populations, primarily elephants.

Grewell, J. Bishop, and Clint Peck. 1999. Greenbacks for Bucks. *Montana Farmer-Stockman*, December.

In this short article, Grewell and Peck explain ranching for wildlife and look at the possibility of implementing ranching for wildlife programs.

James, Alexander, Sam Kanyamibwa, and Michael J. B. Green. 2001. Sustainable Financing for Protected Areas in Sub-Saharan Africa and the Caribbean. In *The Politics and Economics of Park Management*. Lanham, MD: Rowman & Littlefield, 69–87.

James et al. show how the revenue streams created by parastatal agencies create better incentives for environmental management of parks.

Schiller, Erin. 1998. *The Oregon Water Trust*. Private Conservation Case Study. Washington DC: Center for Private Conservation, November. Online: <http://www.cei.org/CPCCaseReader.asp?ID=358>

Schiller provides background on an environmental group in Oregon that uses water markets to protect fish by purchasing instream flows.

Schoenbrod, David. 1997. Why States, Not EPA, Should Set Pollution Standards. In *Environmental Federalism*, ed. Terry L. Anderson and Peter J. Hill. Lanham, MD: Rowman & Littlefield, 259–70.

Schoenbrod presents the argument for environmental federalism in pollution control.

Stalling, David. 1999. Public Elk, Private Lands: Should Landowners Benefit from Elk and Elk Hunting? *Bugle*, January–February.

Stalling examines the controversies and the benefits of Colorado's Ranching for Wildlife program in which private landowners are encouraged to steward habitat in return for transferable hunting permits.

## Block 13: Readings Critical of Free Market Environmentalism

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OBJECTIVE: Emphasize specific criticisms of free market environmentalism including its reliance on the common law and examine whether FME considers moral and ethical issues.

Cole, Daniel H. 1999. Clearing the Air: Four Propositions about Property Rights and Environmental Protection. *Duke Environmental Law & Policy Forum* 10(1): 103–30. Online: <http://www.law.duke.edu/journals/10DELPCole>

Cole argues that free market environmentalists see the market as a savior for all environmental problems, and though it is helpful for some problems, he argues that privatization and free market environmentalism do not work for all problems.

Power, Thomas Michael, and Paul Rauber. 1993. The Price of Everything. *Sierra*, November/December, 87–96.

Power and Rauber believe that FME does not properly consider ethical and moral issues. They are critical of FME's push to harness the self-interest of individuals.

Sagoff, Mark. 1992. Free-Market Versus Libertarian Environmentalism. *Critical Review* 6(Spring-Summer): 211–30.

Sagoff criticizes free market environmentalism for caring more about efficiency than the environment.

Thompson, Andrew McFee. 1996. Free Market Environmentalism and the Common Law: Confusion, Nostalgia, and Inconsistency. *Emory Law Journal* 45(4). Online: <http://www.law.emory.edu/ELJ/volumes/fall96/thom.html>

Thompson argues that free market environmentalism's advocacy of the common law as a solution to environmental pollution is oversimplified and naive.

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