



# Conservation Through Private Initiative Harnessing American Ingenuity to Preserve Our Nation's Resources

By Michael DeAlessi



In the polarizing world of environmental policy, the popular press is replete with stories on the incompatibility of conservation and commerce. From loggers pitted against owls to developers fighting wetlands regulations, the rhetoric in politics and in the media all too often gives a false impression that there must be a choice between one or the other. But conservation is out there. It's happening. And it's going on amidst commercial activities, especially on private lands.

For every spotted owl controversy, there are thousands of cases where conservation and commerce happily get along, from ranchers protecting stream beds to the Louisiana Audubon Society operating oil and gas drills in one of their bird sanctuaries. In fact, it is because these lands are privately owned that the controversy is minimized. On public lands, land-use decisions inevitably wind up in the court of politics, where

rhetoric and extremism trump substance and tradeoffs.

Human ingenuity and the entrepreneurial spirit underlie most conservation success stories. Under private ownership and stewardship, problem-solvers become remarkably resourceful at protecting and enhancing the value of what they own, for reasons as broad as profit and aesthetics, and ranging from fisheries and forests to backyard gardens. It is important to understand that we only protect and conserve what we value. After all, no one will expend much effort to protect something that has no value or is "useless." Of course this value need not be strictly financial; it may be cultural or purely aesthetic. Though few people may see a financial reason to protect a snail darter, many obviously value its existence. And so the value and "use" of resources, whether consumptive or non-consumptive, lie at the heart of environmental protection

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and private conservation efforts.

Of course, commercial activities have also been responsible for environmental degradation, in recent years most notably overfishing, habitat destruction on public lands, and air and water pollution. But in fact, these are classic examples of valuable resources (fish stocks, public lands, air and watersheds) that are not privately owned or protected.

Degraded resources, whether a river, a forest or an airshed, are not generally privately owned. Timber leases in the United States are one example. Timber companies tend to behave very differently when they are harvesting trees from their own land than from public lands. Private timberland owners not only invest in the future health of the land, but consider alternatives to logging such as fee-hunting or hiking, which they cannot with a short-term lease on public forest lands. The fact that timber harvesters are better stewards of their own land than public lands is not a problem with timber companies but with the incentives created by the way public lands are managed.



So why don't we hear more about private conservation? One reason is that success doesn't sell newspapers nearly as well as controversy. Another reason is surely

that private conservation efforts, especially habitat protection, are difficult to quantify under any circumstances, but the regulatory restrictions that often accompany habitats such as wetlands mean that private landowners are downright reticent to scrutiny.

To prove their contribution to environmental quality, and for private conservation efforts to be more widely recognized and less onerously regulated, landowners are going to have to agree on, and measure, a set of well-defined performance metrics to recover endangered species, protect specific habitat types, and so on. Using performance indicators to measure and acknowledge conservation success, especially in the context of using the land, is the next logical step. This study analyzes examples of conservation through private means and explores how performance metrics can aid in the protection of the environment.

## PERFORMANCE MEASUREMENT

One of the great shortcomings of many command and control regulations is that they are more process-oriented than output-oriented. In many cases, success has been measured by permits issued or violations cited, rather than by specific, targeted improvement in environmental quality.

Measuring performance, as well as benchmarking and setting annual performance goals, may be the only way to cut across the partisan lines that have been drawn over environmental protection. Agreeing on how to define success often unites those who are genuinely interested in improving environmental quality. Of course, many measurements are site-specific, but striving to empirically compare different approaches is a vast improvement over rhetorical arguments.

The Endangered Species Act is one such example. Proponents of the Act believe that the restrictions it imposes have kept many species from going extinct. Critics of the Act point out that it has failed to recover more than a handful of species over the last thirty years, and that those same restrictions may do more harm than good to endangered species, especially on private land. This difference of opinion has hindered reform efforts that might otherwise have improved the performance of endangered species recovery efforts. This is beginning to change with efforts such as the Safe Harbor Program, which absolves landowners from restrictive regulations when endangered species are reintroduced on or near their property. Through this program, groups like Environmental Defense and the Peregrine Fund have produced measurable improvements in endangered species populations and available habitat. Of course, the program does nothing for landowners who already have endangered species on their land, but it is an important start.

One of the most promising environmental policy reform efforts in recent years is known as Enlibra, a made-up word adopted by the National Governor's Association to describe a set of principles for dealing with the declining effectiveness of many federal environmental regulations. The idea behind Enlibra is that the low-hanging regulatory fruit has been picked, which means that stricter regulations often result in very little or even no improvement in environmental quality, while imposing much higher costs and regulatory burdens. Water pollution regulations, for example,

initially targeted point sources of pollution. Cleaning up these large, single outfalls of industrial or municipal pollution greatly improved environmental quality. Now, however, most water pollution problems result from non-point sources, that is, a multitude of small inputs that add up to problems in a watershed. Because these sources are difficult to pinpoint or even measure effectively, regulatory approaches have been cumbersome, expensive, and far less effective.

National Parks are overgrazed and overcrowded, fisheries are depleted, nutrient runoff is a problem in many watersheds, catastrophic forest fires routinely rage through the Southwest, fresh water wars continue in the West, and endangered species issues continue to set landowners against environmentalists. Government oversight of these problems rests with such organizations as the U.S. EPA, the Interior Department, and the National Marine Fisheries Service (part of the Commerce Department). Each has over 30 years of experience trying to deal with these problems, and none has an enviable track record. The reason for this is that to date, most environmental regulations and restrictions generally get the incentives all wrong.

Perverse regulations encourage everything from overfishing to pollution, to habitat destruction on both private and public lands. And they have also suffered from a lack of any realistic performance review. For example, the Endangered Species Act (ESA) has not been substantially reformed since its passage 30 years ago, despite the fact that as many species have gone extinct as have been officially recovered in that time.

One problem is that unlike the marketplace, where by definition voluntary trade makes everyone involved better off, politics is a zero-sum game, where gains to one group are made at the expense of another. Turning public lands into wilderness areas, for example, can only be done by taking land away from those who might want to use it as pasture or timber land, and vice versa.

Oil and gas exploration is another classic example. Whether to drill in the Arctic National Wildlife Refuge (ANWR) or not has been a wedge political issue for environmentalists since the start of the George W. Bush administration. Yet a number of local chapters of the National Audubon Society, a particularly vocal opponent of drilling in ANWR, have drilling operations on their own properties. Why? Because they understand the tradeoffs involved

(increased revenues weighed against the risk of environmental damage), and the decision is an internal one. It would be interesting to see just what the Audubon Society would do with the deed to ANWR.

The most promising efforts to address the perverse incentives typically created by command and control regulation are the use of market mechanisms and performance measures, both of which rely on getting the incentives more inline with the desired results, and on tapping into the same human ingenuity that drives commercial activity.

Doing more with less is one of the most important aspects of conservation, and is also one of the prime directives of the profit motive. Aluminum cans and plastic soda bottles are getting thinner all the time not because of recycling mandates, but simply because the profit motive that all businesses face encourages them to reduce material inputs.



Market-based instruments such as tradable pollution permits allow for firms to trade under a total cap on pollution that remains unchanged, or is often even lower, than under previous regulatory schemes that mandated specific reductions or use of specific technologies for individual polluters. The tradable part is crucial because it is what creates

value and spurs the incentive to find innovative ways of reducing pollution—in other words, to do more with less pollution.

Another way to use market incentives to improve environmental management is by attempting to charge more direct fees for services. For example, the fees charged for trash collection are often a flat fee or portion of property taxes independent of what is actually thrown away. One study found that ‘pay as you throw’ programs that charge for the amount of trash led to 17 percent less garbage (by weight) and increased recycling.

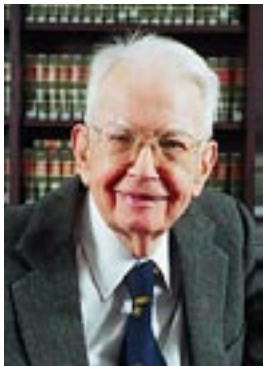
Market mechanisms allow flexibility in achieving real environmental goals, reward innovation, and allow the environmental community to take direct action to protect the environment (for example, by retiring pollution permits).



# OVERCOMING THE TRAGEDY OF THE COMMONS

The phrase “the tragedy of the commons” was coined by the ecologist Garret Hardin in the late 1960s. It neatly summed up the work of economists in the 1950s who described the reasons why publicly managed natural resources in particular tend toward depletion.

Hardin used the tragedy of the commons to describe a situation where resources were depleted because they were free for the taking. In Hardin’s words, when the individual captures the rewards but the costs are borne by the group, “ruin is the destination toward which all men rush.” Hardin used the examples of a pasture and an ocean fishery, but the tragedy also applies perfectly well to the political distribution of environmental amenities, whether timber, wilderness areas, or hiking trails. The tragedy of the commons also applies to pollution because the resource that is being used up (polluted), such as a river or an airshed, is unowned, and so all the benefits of polluting go to the polluter, while the costs are shared by everyone else in that airshed or watershed. The tragedy of the commons neatly explains why a business might do everything it can to reduce its material use of the natural resources that go into its products, while polluting the air at the same time. It all comes down to costs and benefits.



Groundbreaking economists like Nobel laureate Ronald Coase have long understood that the one way to address these costs is to internalize them, that is, to line up the benefits of pollution (whereby a troublesome product is disposed of) with the costs (the environment is damaged). People generally don’t

throw garbage into their own back yards for the exact reason that they own those yards and so the costs of waste production would be internalized.

This underscores the importance of property rights. Economists define property rights as bundles of rights to such things as the use of a resource, the income derived from a resource, and the ability to transfer part or all of these rights. How property rights are assigned affects behavior by establishing different allocations of benefits and harm among individuals. Any attempt to exert control

over a resource is an attempt to define property rights in that resource, whether through regulation, a group rule or a form of exclusive ownership.

Normally, property rights are either controlled by government, held in common by a group, or parceled out among individuals. There is, of course, a great deal of overlap among these groups. A complete lack of property rights is rare, but government ownership often creates perverse incentives that skew the costs and benefits and result in natural resource depletion or environmental degradation.

A classic example is the Alaska Halibut fishery. Public managers attempted to cut down on fish catches by shortening the season, but because it was a public resource, the incentives remained for fishermen to over-harvest the fishery no matter how short the season. And so they did. Even though what was once a near nine-month long season was cut back to 3 days, over-harvesting continued. The fishermen had no incentive to conserve the amount of fish because any fish left would be taken by someone else. Only by creating ownership of the fish through tradable quotas, in other words, recognizing the value of the catch and enabling fishermen to trade on its value by giving them property rights to the fish, were the fish protected. In 1995, the first year of the program, tradable quotas resulted in fleet reduction to less than half, resulting in less environmental damage, and catches rarely exceed authorized levels, enabling the halibut population to stabilize.

In the Washington state oyster fishery, where most oyster beds are privately owned, there has been tremendous private investment not only in enhancing oyster beds, but in pressing for measures to fight pollution because those oysters depend on clean water. Private ownership makes all the difference.

## THE ENDANGERED SPECIES ACT

Most endangered species in the United States rely on habitat that is on private land. The rules and restrictions of the U.S. Endangered Species Act, however, currently make federally listed species a liability for private landowners. Some progress has been made through the Safe Harbor program, which indemnifies qualified landowners from any new restrictions, but does not help those who already have listed species on their property.

Even including public lands, the performance of the ESA to date has been dismal. In the last 30 years, almost



1,300 species have been added to the list of threatened and endangered species, while only 10 North American species have “recovered”, often due to efforts unrelated to the ESA.

Unlike government entities, both non-profit and for-profit private conservation groups must produce results to survive. For example, the Peregrine Fund has established 39 pairs of the endangered Aplomado falcon in the wild and Australia’s Earth Sanctuaries, Ltd. is reintroducing native species to their original habitats throughout Australia.

## WATER QUALITY AND SUPPLY

- Freshwater quality has seen much improvement from the regulation of point sources (that is, single identifiable sources of pollution such as a pipe), but little improvement in non-point (that is, widely dispersed pollution or nutrient loads such as agricultural runoff). To address this problem, the U.S. EPA endorses cap-and-trade programs that use economic incentives to lower pollution and nutrient loads at the lowest cost possible. Trading programs allow for flexibility and innovation—two words rarely associated with the regulatory process.
- Freshwater supply has suffered immeasurably because property rights in water have been ill-defined, especially the ability to sell unused water. Without the ability to transfer water, users have little incentive to conserve,

and especially in the arid West, water shortages are common. Freeing up water markets not only encourages conservation by water rights holders, but has allowed for the formation of water trusts that buy water rights to leave the water instream, providing environmental amenities. Similar private efforts by groups like Ducks Unlimited use water to create wetlands habitat. In either case, whether creating stream flows for fish or wetlands for waterfowl, private groups must demonstrate success to their members, and as a result, Ducks Unlimited, for example, recently celebrated its ten millionth acre of wetlands conserved.

Ducks Unlimited was formed in 1937 as an effort by a group of sportsmen interested in preventing the decline of the waterfowl they loved to hunt. They started out restoring and improving wetlands in Canada, and quickly became known as a group of engineers who measured success in acres of water restored. Today, Ducks Unlimited is a large organization with projects throughout North America. In its 2001 annual report, Ducks Unlimited reported net assets of over \$60 million, and annual support and revenues of over \$130 million.

## PUBLIC VS. PRIVATE LAND MANAGEMENT

- About one-third of the land in the United States is owned by the federal government, with the greatest concentration occurring in the West and in Alaska. A recent study found, however, that despite increased expenditures on public lands throughout the United States, the quality of the land has deteriorated. One of the main reasons for this is that revenues from these lands are often unrelated to the budgets given to them by agencies like the National Park Service and the Forest Service.
- Private landowners, on the other hand, face a direct correlation between the health of the land and the revenues they derive from it, and they also face the immediate tradeoffs of sacrificing, for example, recreation for timber harvesting. These tradeoffs are the reason that many private landowners are finding innovative, environmentally sensitive ways to harvest trees, explore for oil and gas, or reclaim mine sites so that hunters, hikers, or birdwatchers will still want to visit.



Deep in the marshes of Louisiana, there is living proof that oil and wildlife can mix. The Rainey Sanctuary is such an important bird sanctuary that even the public is not

allowed to visit, but because they own the land, many years ago Audubon weighed the benefits of oil and gas development against the environmental hazards, and chose to go ahead. Of course, they took the precautions they thought necessary to protect the birds, but they also reasonably determined that the risks of environmental damage were outweighed by the size of the revenues from development.

Rainey's 26,000 acres of brackish and freshwater marshes are a rich feeding area for wintering waterfowl. And in the early 1980s, gas wells in Rainey brought in close to a million dollars in revenues to the preserve. The wells have been in operation for decades, and the wildlife doesn't seem to mind.

Thus, despite the National Audubon Society's opposition to oil and gas exploration on public lands like the Arctic National Wildlife Refuge, state chapters of the Audubon Society have demonstrated that it can be done responsibly at the Rainey preserve in Louisiana and in Michigan at the Baker Sanctuary.

## COASTS AND OCEANS

- Overfishing and coastal degradation are common because of what is commonly referred to as the "tragedy of the commons," which occurs when valuable resources are free for the taking, whether fish, clean water or habitat. The key to rehabilitating and sustaining the ocean environment is overcoming it through private stewardship and property rights.
- New Zealand provides the perfect illustration of the full potential of marine property rights. Because they have secure tenure over their fisheries, New Zealand fishermen have formed management companies that invest in stock research and enhancement. They manage the resource cooperatively with the government, they take multi-species management into consideration, and are even experimenting with no-take zones. In other words, property rights to fish have created the kind of integrated management framework necessary to improve the marine environment.



## CONCLUSION

Private conservation activities and private, entrepreneurial innovations that benefit the environment long predate the environmental movement, and remain an integral part of any solution to our current environmental issues. The majority of endangered species in the United States, for example, depend on private lands for their survival.

No one questions the impetus for a cleaner, healthier, species-rich environment. How we get there, however, is another question. Of course, government regulation has had its successes, but command and control approaches to environmental protection have essentially run aground. Unless state and federal governments start using more innovative approaches to solving environmental problems, we will just spend more and more, yet achieve less and less.

Reason Foundation has been at the forefront of many of the most promising avenues for improving environmental management, developing what is known as the New Environmentalism, which includes using market mechanisms to control pollutants and nutrient loads, measuring success through environmental standards and performance measures, privatizing or outsourcing non-core functions, and relying on property rights and private conservation wherever possible. These entrepreneurial efforts have shown that harnessing the American ingenuity that drives commercial activity can successfully and effectively protect our resources for future generations. When we add to that measurable performance metrics for conservation we can expand the scope and effectiveness of private conservation efforts. ■



## ABOUT THE AUTHORS



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## RELATED STUDIES

Michael De Alessi, *Preliminary Ocean Policy Report Misses the Boat*, Reason Foundation Policy Brief No.29, April 2004, <http://www.rppi.org/pb29.pdf>

Michael De Alessi, *Overcoming Three Hurdles to IFQs in U.S. Fisheries: A Guide for Federal Policy Makers*, Reason Foundation Policy Brief No. 28, April 2004, <http://www.rppi.org/pb28.pdf>

Michael De Alessi, *Saving Endangered Species Privately: A Case Study of Earth Sanctuaries, Ltd.*, Reason Foundation Policy Study No, 313, August 2003, <http://www.rppi.org/ps313.pdf>

Michael De Alessi, *Removing Muck with Markets: A Case Study on Pollutant Trading for Cleaner Water*, Reason Foundation Policy Brief No. 24, August 2003, <http://www.rppi.org/pb24.pdf>



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