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REGULATING BIODIVERSITY: TRAGEDY IN THE POLITICAL COMMONS

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Last summer lightening struck and killed an enormous pine tree on one side of my back yard. At about the same time, voracious pine bark beetles girdled and killed an equally impressive pine tree on the other side. Now bereft of needles, these two arboreal giants pose a potential threat to my house if they were to fall at just the right angle. In the interest of safety, my wife wants to have the trees removed; for the sake of promoting biodiversity on my 2-acre lot, I do not.

Our personal dilemma mirrors a much larger struggle that quietly threatens to destroy the rights of private timber land owners across the United States - - the desire of urban dwellers to have their figurative cake and eat it too. They demand houses made of wood, wood furniture, paper and paper products, and so on, while also demanding environmental amenities such as aesthetically-pleasing landscape views, biodiversity, and animal habitat. At a personal level this can't be done. If the trees are removed, my wife has peace of mind, but the many animals that depend on dead pine trees for their existence, either directly or indirectly, will vanish. If the trees stay, we will be promoting the ecological diversity of our property but my wife will worry about our house with every gust of wind. We can't have it both ways. Similarly, at a macro level, there is a trade-off between production/consumption of timber and production/consumption of related environmental amenities.

The Role of Intensively-Managed Forests

The problem of how to grow and harvest increasing amounts of timber while simultaneously producing a steadily-increasing array and level of environmental amenities associated with forested land has resulted in an industry-wide discussion of how to simultaneously achieve both objectives. There is a growing appreciation within the forestry community for the prospect that intensively-managed forests may yield increasing amounts of wood while minimizing the total acreage from which wood is harvested. This maximizes the amount of acreage available to meet other demands - - e.g., agricultural production, animal habitat, and other environmental amenities associated with natural forests.

However, intensively-managed forests have come under heavy fire from self-proclaimed environmentalists. In these so-called plantation forests, man, not nature, regenerates the trees, which accordingly grow in even-aged stands. Their well-being is affected by the application of herbicides and pesticides, as well as by occasional thinning and fire management. In contrast to naturally (re)generated timber land, plantation timber land has been described as an "ecological

desert,” with the stated or implied conclusion that the nature and extent of biological diversity associated with natural forests is both greater and, therefore, more desirable than that associated with plantation forests (National Audubon Society, n.d.).

The Threat to Private Landowners and Social Welfare

Such pejorative rhetoric is both misleading and counter-productive. The unfortunate, but nonetheless compelling truth is that we can't have our cake and eat it too. We must make responsible choices about what to produce and how to produce it. A serious threat to private land owners develops when citizens living in urban areas demand that private owners of timberland (definitionally located in rural areas) produce environmental amenities such as aesthetically-pleasing views, biodiversity, animal habitat, and the like, *provided they (the urbanites) don't have to pay for it.*

Further, they seek to enforce their demands by using the political process to pass regulations that require land owners disproportionately to bear the cost of producing these environmental amenities. For example, Oregon law requires private timber land owners to re-plant within 2 years areas from which they cut trees. Other regulations forbid clear-cutting of timber land. Federal regulations pertaining to endangered species are incredibly restrictive and intrusive with respect to an individual's property rights. The pursuit of environmental amenities that are vital, we are told, to some vaguely defined public interest through policies that impose virtually all of the costs on relatively small numbers of private landowners generates what might be termed a 'tragedy of the political commons.'

Garrett Hardin (1968) introduced us to the tragedy of the commons. Hardin developed a stylized example of a communal pasture, open to all comers. There are no private property rights to the pasture, or rules, customs, or norms for shared use. In this setting, shepherds seeking to maximize the value of their holdings keep adding sheep to their flocks as long as doing so adds an increment of gain for their particular flock. Further, they graze their sheep on the commons as long as the pasture provides any sustenance. Ignorant of the effects of their individual actions on the other shepherds, the shepherds collectively (and innocently) destroy the pasture. As Hardin concludes: "Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit - - in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in freedom of the commons."

Man's exploitation of the political commons is analogous to his exploitation of natural resource commons. Our majority-rule voting process, which permits a majority of citizens to impose differential costs on the minority, encourages over-protection of endangered species, and over-production of biodiversity, animal habitat and landscape views. This occurs because each individual who bears a negligible portion of the costs of providing environmental amenities has a private incentive to keep demanding additional environmental protections as long as there is

ANY perceived marginal benefit. As with the over-grazed pasture, the result of over-protecting Bambi is, as has become apparent all over the eastern United States, disastrous. Moreover, and not surprisingly, we are starting to hear real concern voiced about the recent proliferation of other animal species such as black bears, mountain lions, and coyotes. We are creating social tragedies that result from the political commons.

The tragedy is compounded by the incentives generated for private landowners by the heavy hand of command and control policies. When private property rights are abrogated by government action, with no compensation to land owners, the adversely-affected land owners have strong incentives to mitigate their expected losses. They can do so by changing their land use from timber production to housing or commercial development. There is no positive incentive to promote habitat for endangered species; doing so only means that use of your land will be seriously compromised by the highly restrictive provisions of the Endangered Species Act. Instead, a landowner who finds a member of an endangered species on his property has a well-understood incentive to 'shoot, shovel, and shut up.' Such behaviors are not likely to further environmental objectives.

It is relatively easy to demonstrate that it is the fact that private timber land owners bear the cost of producing biodiversity that leads non land owners to demand excessive amounts of it. The first point to be made in this regard is that urbanites do not, in fact, place a high value on biodiversity. One need look no further than the readily observable behavior of urbanites for proof of the veracity of this claim. Urbanites have the ability and prerogative to self-produce biodiversity on their own residential property. That is, they could let their residential lots grow 'wild,' with natural flora and fauna. This would, without question, promote ecological diversity. In practice, virtually no residential property owners, living anywhere in the U.S., do this. Instead, they invest (implicitly through their time and explicitly by purchase) hundreds, if not thousands, of dollars annually in the care and maintenance of their lawn and grounds in a decidedly unnatural state. Like owners of intensively-managed timber land, owners of residential property chemically treat and harvest the growth on their property. In so doing, they create a landscape with relatively little floral or faunal diversity. What this behavior reveals, of course, is that urban dwellers place a higher value on having their own aesthetically-pleasing ecological deserts than on personally promoting local biodiversity, even when the latter would save them hundreds, perhaps thousands, of dollars each year. The clear implication is that urbanites simply do not attach much importance to biodiversity.

This leads directly to a second point: notwithstanding the fact that biodiversity is of little importance to them personally, urbanites may vote in favor of local, state and federal statutes that ostensibly enhance biodiversity, provided such statutes impose the cost burden on rural land owners. The feel-good benefit of such regulation may be small, but with no personal costs to worry about, urbanites can be convinced to vote for them. However, if there was even a moderate cost to urban dwellers, we can be reasonably certain that restrictive regulations would not be passed. This explains why, for example, Oregon's re-planting regulations are not imposed on owners of residential properties who cut down trees.

Earth's limited resources cannot provide all things to all people simultaneously. For that matter, the earth cannot provide all things just to self-proclaimed environmentalists. Consequently, responsible choices about resource use must be made. It is irresponsible to enact environmental policies that impose costs disproportionately on private timber landowners. Such policies lead to overproduction of environmental protection because urban voters who, despite what they may say in fact clearly place little value on environmental amenities, vote in favor of regulations that are written to impose little or no cost to them personally. Further, these policies create incentives for private timber land owners to minimize, not maximize, their production of environmental amenities. This incentive incompatibility problem makes it less likely that public policy actually will be effective in attaining the stated objectives that ostensibly form the basis for the policy.

Garrett Hardin, "The Tragedy of the Commons," Science (162), 1968, pp. 1243-48.

National Audubon Society, <http://www.audubon.org/campaign/fh/chipmills.htm>. No date.