

Ecosystem Management across Ownerships: The Potential for Collision with Antitrust Laws

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Abstract: *Cross-boundary ecosystem management is increasingly being advocated to address large-scale ecological issues on forested landscapes. Such management requires information about the age, composition, and distribution of trees and other vegetation in addition to the ability to coordinate management over large areas. In the United States, the forest industry owns and manages a large quantity of biologically productive forest land, and these forests are crucial to the success of regional ecosystem planning. Antitrust laws, such as the Sherman Antitrust Act of 1890, limit the industry's ability to participate in regional ecosystem planning because they restrict the ability of competing firms to coordinate activities and share information. Because antitrust courts do not consider the intentions of violators, achieving conservation or other public policy goals, even when working with government agencies, is not a sufficient defense. Therefore, the real and perceived threat of antitrust litigation is a disincentive to the forest industry's participation in large-scale ecosystem management. Potential solutions to this problem include state immunity statutes and third-party data aggregation.*

Key Words: antitrust law, cross-boundary management, ecosystem management, forest industry, Sherman Act

Gestión de Ecosistemas a través de Propiedades: El Potencial de Colisión con Leyes Antimonopolio

Resumen: *Cada vez más, la gestión translímites de ecosistemas esta siendo apoyada para atender temas ecológicos de gran escala en paisajes boscosos. Tal manejo requiere información sobre la edad, composición y distribución de árboles y otra vegetación adicionalmente a la habilidad de coordinar la gestión en áreas muy extensas. En los Estados Unidos, la industria forestal es dueña de y maneja una gran cantidad de terrenos forestales biológicamente productivos y estos bosques son cruciales para el éxito de la planificación ecosistémica regional. Leyes antimonopolio, como el Acta Sherman de 1890, limitan la capacidad de la industria para participar en la planificación ecosistémica regional porque restringen la capacidad para coordinar actividades y compartir información entre las empresas en competencia. Debido a que las cortes antimonopolio no consideran las intenciones de los violadores, el logro de la conservación u otras metas de políticas públicas, aun cuando se trabaje con agencias gubernamentales, no es una defensa suficiente. Por lo tanto, la amenaza real y percibida de la litigación antimonopolio es un incentivo negativo para la participación de la industria forestal en la gestión de ecosistemas a gran escala. Soluciones potenciales a este problema incluyen cláusulas de inmunidad estatal y agregación de datos de terceras partes.*

Palabras Clave: Acta Sherman, gestión de ecosistemas, gestión translímite, industria forestal, ley antimonopolio

Introduction

Ecosystem management has received much attention over the past decade and has been put forth as the management

scheme for much of the public land in the United States (Morrissey et al. 1994). Planning efforts are expanding to include private lands, and industrial forest landowners are frequently encouraged to participate (Haufler 1995;

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Paper submitted June 17, 2003; revised manuscript accepted April 29, 2004.

Wear et al. 1996; Wall 1998; Arnett & Haufler 2003). Cooperation among competing private forest companies within an ecosystem management plan raises the potential for antitrust law violations. We elaborate on this issue by crafting three general arguments: (1) forest industry lands are important to the success of ecosystem management, (2) antitrust laws pose an obstacle to the forest industry's involvement in ecosystem management, and (3) there are ways in which policy makers can bring about ecosystem management while minimizing the pitfalls associated with antitrust laws.

Background

Ecosystem management has been defined in several ways (Yaffee 1999). There seems to be consensus, however, that it differs from traditional single-species and single-ownership management in its attempt to manage across ownership and administrative boundaries, at several spatial and temporal scales, with the goal of ensuring long-term sustainability (Grumbine 1994; Christensen et al. 1996). Here we use the term to mean forest management on large spatial scales over long time frames to achieve social and ecological goals.

Perhaps because forest-products companies have only recently begun participating in ecosystem management efforts, no company has yet been charged with an antitrust violation associated with cooperative environmental planning. Therefore, without case law to establish precedent, it is hard to gauge how much interfirm cooperation is legal. Some cooperative agreements and disclosure of certain types of information required for long-term ecosystem planning between private firms, however, could be interpreted as anticompetitive under federal antitrust laws (Pauw et al. 1993; Sample 1994; Meidinger 1997). This possibility inhibits the participation of private firms in ecosystem management (Pauw et al. 1993). By examining the ways in which ecosystem management may raise antitrust concerns, we may anticipate conservation-related problems and seek solutions before they culminate in failure. This, we believe, is a prudent approach to biodiversity conservation.

Although we focus on owners of industrial forests, there is concern that antitrust law may pose a barrier to successful environmental collaboration in several other business sectors, including agriculture (Pauw et al. 1993; Sample 1994), commercial fishing (Kerry 2001), and industrial pollution controls (Luxton et al. 2002). Any time conservation planning requires cooperation between competing private firms, the potential for antitrust violations exists. Case law shows that achieving public-policy goals, even when working with government agencies, is not a sufficient defense against antitrust enforcement actions (Luxton et al. 2002).

The Case for Ecosystem Management on Forest Industry Lands

The idealized ecosystem management plan considers ecological processes on large spatial scales (Keiter 1994; Christensen et al. 1996). It recognizes ecological rather than sociopolitical boundaries and enlists the cooperation of all the landowners within the scope of the plan—both public and private (Grumbine 1994; Sample 1994). This is important because ecological boundaries do not often conform to private ownership boundaries (Knight & Clark 1998). It is estimated that 90% of all threatened or endangered species spend at least part of their time on private lands, and 40% are found only on private lands (General Accounting Office 1994). Some of these species may cross hundreds of administrative boundaries throughout their lives. As recent fire seasons have emphasized, ecological processes are also oblivious to ownership. It is for these reasons that ecosystem managers seek to move away from species-by-species and property-by-property approaches to meeting ecological objectives.

Forest industry lands are critical to the success of ecosystem management in the United States. The industry owns approximately 27.5 million ha of forest lands throughout the country—almost half as large as the National Forest System (U.S. Department of Agriculture Forest Service [USFS] 2000). Some industry holdings are large contiguous blocks, whereas others are interspersed, often in checkerboards, with public lands and other private lands. This large matrix of managed forests can complement natural reserves and public lands if its management contributes to both conservation and commodity production goals (Hansen et al. 1991). Without the forest industry's involvement, however, these lands may reverse progress made on adjacent protected areas by diluting and fragmenting the conservation efforts of ecosystem managers. The challenge, then, is facilitating participation by all landowners within the scope of a management plan.

In many ways, forest industry lands lend themselves well to ecosystem management. Most importantly, the forest industry wants its land to stay forested rather than be converted to some other use. This makes the industry easier to collaborate with than private owners of nonindustrial forest, who tend to turn over and convert their land more often (MacLean 1990) and are generally less predictable land managers (Stanfield et al. 2003). The rate of development of timberlands is projected to continue increasing (Alig et al. 2003); therefore, ecosystem managers who keep today's timberlands forested into the future will have succeeded in what may be the primary challenge for the conservation of forest biodiversity.

Why would the forest industry want to cooperate in these efforts? Industrial forest owners often wish to assess the status of their forests relative to the surrounding landscape (Haufler 1995). Also, they may wish to ensure that federal regulators appreciate the diversity of their

forests and to ensure that these regulators examine their lands in the context of the entire public-private landscape mosaic. Furthermore, the industry stands to improve the public's opinion of forestry by participating in ecosystem management projects. A recent survey commissioned by the Oregon Forest Resources Institute found that mending the relationship between the forest industry and environmental groups was one of the highest ranking concerns Oregonians had about forestland issues (Davis 2001). Finally, participation in planning efforts may offer some regulatory stability and stave off expensive listing under the U.S. Endangered Species Act (ESA; Wall 1998).

As the principles of cross-boundary ecosystem management become more institutionalized, the forest industry has increasing incentive to participate. As of 1995, the Washington Forest Practice Rules began requiring watershed-level (4000 to 20,000 ha) consideration of the cumulative impacts of timber harvests across all ownerships (Washington Forest Practices Board 2003). The 1997 Oregon Plan for Salmon and Watersheds created a set of legal and voluntary frameworks for private landowners to manage riparian lands cooperatively in an attempt to reverse the decline of anadromous fish populations (State of Oregon 1999). The U.S. Fish and Wildlife Service, which administers the ESA, prefers regional, as opposed to project-level, habitat conservation plans (U.S. Fish and Wildlife Service [USFWS] 1996). Although none of these policy structures directly conflict with antitrust law, they do create an opportunity for violations to occur if participants are not cautious.

Potential for Conflict

The Sherman Antitrust Act of 1890 (the Sherman Act) is the most important federal antitrust law. Section 1 of the Sherman Act prohibits companies from collaborating with one another to restrain trade (15 U.S. Code, Section 1). A violation of Section 1 consists of two elements. The first is that a contract, combination, or conspiracy exists between two or more firms (*Lumber Dealers' Association v. United States* 1914). The agreement element is satisfied by informal agreements; no written or legally binding contract is required. The second element of a Section 1 violation is that the agreement be an unreasonable restraint of trade (*Chicago Board of Trade v. United States* 1918). An action considered a restraint of trade under the Sherman Act may be illegal in and of itself, or it may be legal in some circumstances but judged harmful to competition and illegal in others. A single firm's conduct cannot violate Section 1 because no collaboration would exist. Therefore, ecosystem management decisions made by a single firm will not raise antitrust concerns. It is only when planning objectives require two or more industrial forest owners to agree about the planning process or agree on the terms of their management that a violation of Section 1 could occur.

In the context of ecosystem management, there are two primary areas of antitrust concern—market allocation and information sharing. Both could be violations of Section 1. Market allocation refers to agreements between competitors to divide the market between them. Therefore, if industrial forest owners agreed to sell timber on a mutually developed schedule, they could be viewed as illegally allocating customer's purchasing in different years. Market allocation by competitors is a restraint of trade and illegal and is therefore termed a per se violation. The second area of concern, information sharing between competing firms, may be legal in some situations and illegal in others. When industrial forest owners share details of their inventories and intentions, and this information directly or indirectly affects competition, there is potential for an antitrust action. This is termed a violation of the Rule of Reason.

Market Allocation

There are many situations in which scheduling activities across a landscape may be desirable for ecosystem management. For example, an objective of an ecosystem management plan may be to minimize the size of harvest units occurring within a multiowner watershed. This may be accomplished by requiring a waiting period of several years after a clearcut to allow for regeneration before another clearcut is scheduled on an adjacent ownership. This type of restriction on the timing of adjacent clearcuts is referred to as a minimum green-up period, and is common on single ownerships (e.g., Oregon Department of Forestry 1996). Maintaining stream quality, another common theme of ecosystem management, could be aided by coordinated harvest scheduling. Managers may want to disperse the disturbances along a stream by coordinating the timing of harvests among multiple owners. This may reduce sediment loads and lessen the cumulative impact on the stream. Another case in which coordinating harvests may be advantageous is when managers are trying to ensure some minimum quantity of older forest across a watershed. This may help to provide habitat for some desirable species. Rather than place the burden of holding old timber on one owner, it may be desirable to maintain a shifting mosaic of old forest across the landscape. In all three of these examples, coordinating the timing of harvests may be the best way to meet the objectives of ecosystem management; however, it is also a form of market allocation and may therefore be a violation of Section 1.

Even if the intent of collaboration is environmental protection and not increased profits, it could still be illegal—antitrust courts do not consider the intentions of firms that agree to allocate the market among themselves. Therefore, many common features of ecosystem management that, in effect, systematically reduce output could make firms vulnerable to antitrust attack.

Information Sharing

In addition to categories of conduct that are per se illegal, an agreement may be illegal under Section 1 if it harms competition more than it helps (violation of the Rule of Reason). An agreement that reduces competition may not be defended under the antitrust law by asserting that it furthers some other social goal. Courts read the Sherman Act as a directive by Congress to ensure that competition is the governing paradigm in the economy. Some agreements that would be condemned under the antitrust law, however, have been exempted from antitrust scrutiny by statutes based on other social purposes.

A decision to share information among industrial landowners within an ecosystem management plan is one agreement that may affect competition. Information about prices, costs, and production quantities can all have competitive significance. Although the competitive significance of the information shared is considered on a case-by-case basis, some generalizations can be made. For example, sharing information about prices is more dangerous than sharing information about costs. Sharing business projections is more dangerous than sharing information about the past. Sharing information about a specific firm is more dangerous than sharing average information about a group of firms. Information exchanged privately is more dangerous than information exchanged publicly. Information exchanged in a market with few firms is more dangerous than the same information exchanged in a market with many firms. Finally, as long as the information has no direct or indirect effect on production or purchasing conditions, it is likely to be lawful under the Rule of Reason because it would have no impact on competition.

What type of information is needed in ecosystem management planning? Common features of other, single-ownership management plans include a specific inventory of the forest, the location of different forest types across the landscape, a description of the desired future condition, and measures of sustainability (Forest Ecosystem Management Assessment Team [FEMAT] 1993; Morrissey et al. 1994). Cross-boundary ecosystem management planning would, presumably, use the same type of information.

The benefits of sharing these types of information include knowing the owner's intentions for each piece of ground and having the ability to mitigate ecological impacts either on site or elsewhere on the landscape. Given these facts, participating firms may be expected to share spatially explicit management information for actions into the future. They may be asked to disclose their standing volume, their business plan for the included properties, and their harvest scheduling information. Involvement in these programs and sharing this type of information could reduce regional competition among industrial forest-product companies and, therefore, make a company vulnerable to antitrust enforcement.

The Forest Industry and Antitrust Law

Because it is difficult to gauge how much interfirm cooperation is legal, the forest industry is likely to avoid any partnership that could be interpreted as anticompetitive. The forest industry is no stranger to antitrust litigation. From the 1940s to the 1960s, the timber industry had serious antitrust problems arising from competitors' sharing of information about customers, price quotations, and production costs. According to Jan Pauw, an attorney for Weyerhaeuser Company, some cases were settled through consent decrees negotiated with the government, and a great deal of money was paid to settle private antitrust suits (J. Pauw, personal communication). (Because of the lack of published information concerning forest ecosystem management and antitrust law, we conducted informal interviews with several people who have a unique level of personal experience with this topic.) There is also a history of interfirm collusion during the bidding process for federal timber sales. By agreeing to bid only for the stumpage rights in a particular region, logging contractors can ensure a lack of competition and low prices. Two companies were found guilty of market allocation on the Tongass National Forest in southeastern Alaska and were forced to pay three times the estimated damages plus attorney's fees (*Reid Brothers Logging Company v. Ketchikan Pulp Company and Alaska Lumber and Pulp Company* 1983). According to Ward Armstrong, an attorney and retired director of the Oregon Forest Industry Council, "There is now a high sensitivity to antitrust because many industries have been burned with enforcement actions, particularly in the pulp and paper side, on charges of price fixing" (W. Armstrong, personal communication).

With its history of antitrust violations, and being mindful of the time and expense of antitrust litigation, the forest industry goes to great effort to ensure that no sensitive information is shared between companies. All industry meetings begin with an antitrust statement that is kept on record in the meeting's minutes. The statement begins by explaining the purpose of the gathering. Next, it reminds all parties that any discussion of prices, market share, inventory, or discounts, either at the conference table or on the side, is illegal. It suggests that anyone who feels uncomfortable with the discussion raise a hand, give an explanation, and leave; the departure is noted in the minutes. This practice is common at all industry meetings, large or small (W. Armstrong, personal communication). Antitrust attorneys from each company are typically present at large trade-association meetings and are charged with stopping the proceedings if any inappropriate discussions occur or if inappropriate data are shared. Much of the other information on how the industry tries to avoid antitrust problems is considered confidential and has not been made public (W. Armstrong, personal communication). The industry's apprehension

toward partnerships and information disclosure creates an obvious obstacle to ecosystem management.

Potential Solutions

Forest industry lands are crucial to the success of regional-scale ecosystem management, yet the industry is bound by the law and a commitment to confidentiality from participating fully. In these facts lies the dilemma. Thus, it may be prudent to explore whether it is possible to construct ecosystem assessments and ecosystem management plans while minimizing the industry's exposure to antitrust liability.

Government Involvement

In a suit under either the Rule of Reason or a per se rule, defendants may not justify their conduct on the basis of social policies unrelated to competition. Therefore, an anticompetitive practice may not be defended under these rules by establishing that it advances environmental goals. This does not mean, however, that social policies unrelated to competition have no place in antitrust litigation. A state may pass a statute designed to advance another social policy and that state statute can be entitled to respect by an antitrust court. For example, a state may decide that public utilities should be regulated and competition eliminated by assigning them discrete territories in which to operate. Obviously, if the utility companies had divided geographic areas among themselves by agreement without state involvement, such an agreement would be per se illegal market allocation. The state statute authorizing a government agency to allocate territories, however, could be immune from antitrust attack. This form of immunity could be used to allow a state to advance the goals of ecosystem management.

State action immunity from antitrust attack has two requirements. First, the state must clearly state its intent to replace competition with regulation. This clear statement usually takes the form of a statute. Second, a state agency or entity must actively supervise any conduct by private firms. Even if the first requirement of a clearly stated intent to replace competition is met, this alone will not provide immunity if the state fails to supervise the private actors operating under the statute. Antitrust courts want to make sure that the conduct is implementing a decision of the state, rather than pursuing the private interests of private actors. In the context of ecosystem management, a state could pass a statute allowing its forestry or natural resource agency to supervise the sharing of information necessary to achieve the management goal. It would even be possible for a state to pass a statute allowing this agency to approve a production schedule to be followed by private firms under an ecosystem management plan. As long as the statute clearly articulates a policy that replaces competition with regulation and the state agency

actively supervises the private actors, the conduct would be immune to antitrust attack.

Although it would be possible for a state to pass legislation allowing a state agency to approve potentially anticompetitive behavior to further ecosystem management goals, a state may be hesitant to do so. Forest resource managers are trained to assess environmental goals and develop policies to achieve those goals, but they are not trained to balance how much reduction in competition is desirable in an effort to achieve those goals. A state may be hesitant to vest forest resource managers with the authority to balance competing economic and environmental goals.

Third-Party Data Aggregation

Acquiring state action immunity may be too complex and politically charged to be a common solution. Another way to minimize antitrust liability to perform some basic information sharing is third-party data aggregation, which removes the proprietary source of the data. Recently, there have been several organized efforts to conduct ecosystem-level assessment of current and future trends across ownerships, with varying levels of forest industry involvement. Some (e.g., Sessions et al. 1991) used information, confidentially provided by industrial firms, on their inventories and intentions to help portray the current status of regional forest lands after this information was merged into multicounty groupings. Others, such as the work known as the Coastal Landscape Analysis and Modeling Study (Spies et al. 2002), combine remotely sensed imagery with plot information gathered by the USFS and landowner surveys to parameterize probabilistic landscape simulation models. Still others, such as the *Willamette River Basin Planning Atlas*, use publicly available sources (Hulse et al. 2002).

Unfortunately, data aggregation may not accommodate some of the site-specific types of information that ecosystem management requires. But public land managers can use these assessments to tailor actions on public land so that they have the desired cumulative effect across the landscape. Federal and state policy can use the assessments to determine the aggregate effect of their policy decisions; this has helped them formulate the contributions needed from private landowners to achieve certain conservation objectives. So far these assessments have rarely, if ever, led to centralized landscape-level planning over multiple private owners.

Conclusion

Ecological processes and the species that depend on them are not bound by sociopolitical ownership boundaries. Consequently, to achieve the objectives of forest ecosystem management, planning efforts must expand out of the

public lands and into the mosaic of private lands. Lands owned by the forest industry must be included in this type of large-scale planning. Forest industry lands cover tens of millions of hectares, are biologically productive, and likely to stay forested. The industry also has many incentives to participate, such as ensuring regulatory stability, bolstering public opinion, and complying with environmental laws.

Antitrust laws, specifically the Sherman Act, could be a serious obstacle to multiowner landscape planning. The forest industry has a history of antitrust violations and several companies have had to pay large monetary damages. This, in addition to the time and expense related to litigation, has created a great apprehension toward cooperative planning and sharing proprietary information. Disclosure of data related to harvest scheduling, inventories, or market share could be essential to a successful ecosystem management plan, but may also make companies vulnerable to charges of anticompetitive behavior.

There are, however, ways in which forest industry lands may be included in ecosystem management with lower risks of antitrust enforcement, including regulatory structures that may provide immunity. If there is no way to secure the participation of private landowners, there are methods of using aggregated data and probabilities to avoid the use of proprietary information. It is likely that these types of solutions will have to be used to legally include forest industry lands in ecosystem management planning.

Acknowledgments

We thank J. Bliss, H. Salwasser, K. Thompson, W. Armstrong, and J. Pauw for helpful discussion; and A. Robillard, C. Kakoyannis, G. Wells, E. Freyfogle, and four anonymous reviewers for thoughtful comments on an earlier version of this manuscript.

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