

ECONOMIC PROSPECTS OF PRIVATE FOREST OWNERS

I've been asked to talk a bit this evening about the economic prospects of private forest lands in the northeast. To set the scene for this, I'd like to remind you that we really use three great systems for determining how such scarce resources will be used. One, of course, is the economic system with its elaborate and highly variable market structure, and a seemingly precise calculus of money. If this were all, resource decisions might be relatively simple, but economic conclusions are often tempered by custom, habit, a sense of appropriateness, moral preference and a host of things we call culture. Many of these decision schemes are more rigid and more effective than market inducements or the law. The constraints set by law, of course, complete the trilogy of decision-making methods and is the mechanism through which group political beliefs are enforced. These group beliefs are similar to, but not quite the same, as those cultural forces that impinge so heavily on individuals.

So we must remember that the prospect for private forest landowners is like a milking stool, supported by three legs - economics, culture and law. Furthermore, if we are to rest comfortably on this perch, all three legs must be reasonably well coordinated and about equally well developed.

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One aspect of private forestry which is frequently misunderstood is the concept of landownership itself. Joshua Williams, in his *Law of Real Property* notes, "The first thing that the student has to do is to get rid of the idea of absolute ownership. Such an idea is quite unknown to the English Law. No man is in law the absolute owner of lands. He can only hold an estate in them. The basic idea of tenure is that of a tenant holding from a lord and ultimately the King".

Since our property laws follow the English idea which developed from feudal tenure systems, we must look back to Old England for an understanding of the basis on which the APA and other government bodies can moderate the decisions of private individuals.

Under feudalism, there were two basic tenures: unfree, where the tenant was tied to the land and free tenure for those who had the use of the land in return for services. These services included military (knight tenure), spiritual welfare (frankalmoign), personal services (serjeantry), and agriculture (socage). All but socage have been discontinued and the duty to give agricultural services has been replaced by a fixed payment of money. This is the origin of our present method of ownership in "fee simple" (the "fee" means "fief" which is feudal language for "interest in land"). Even today the state is the owner of last resort so that when private inheritance fails it takes the land by escheat. Eminent domain is merely repossessing an estate or interest in land which is basically the state's, for use in some overriding public benefit. The private owner is compensated for his loss of tenure.

It is obvious that landownership really allows a person to exercise a bundle of rights, and any one of these can be given up by sale or by public denial without impairing the remaining rights. This is the basis for zoning, conservation restrictions, purchase of development rights and a host of other land use controls.

The colonists brought this legal freight about the nature of landownership with them and it influenced the way land passed into private hands. In the northeast direct grants from the King were never very effective as a means of getting the public domain into private hands. The companies or colonies chartered by the King became the main land granting agencies, although not until after a great deal of soul searching because most of them were not specifically empowered to do so. But the urgent practical need to settle the country by private effort won out over the obscurities of charter language.

Throughout the colonial period forest landowners were busy converting woodland into farmland as fast as their limited labor would allow. Although wilderness today has a kind of magic appeal as a pleasant place to visit, then it was called a "horrid, howling wilderness" where life was "short and nasty". The open rural landscape of fields and pastures depicted by Currier and Ives represented civilization and progress. The woodlot had its place as a local source of firewood and lumber for repairs and the logger who clear cut other landscapes wholesale was only preparing the way for the farmer who would be the stable backbone of the country.

The forces of culture, law and economics all combined to get four out of five acres in New England cleared for agriculture by the early 1800's. After about a generation this brief prosperity declined in the face of stiff competition as the rich soils of the Mohawk Valley and Ohio were settled and made accessible to the east coast by the Erie Canal and the railroads.

As New England farming was given up, the forest moved in to reclaim its own. The resulting old-field white pine-hardwood succession first provided the material base for the pine industry era that ended during the first quarter of this century and second, regenerated into today's forest of mixed hardwood, white pine and hemlock.

Northern Maine and the higher reaches of the White and Green Mountains and the Adirondacks were exceptions to this general sweep of agricultural development, decline, regrowth and forest exploitation. Most of these areas have stayed in forests that have provided the base for a sequence of the lumber, turnery, veneer, pulp and paper industries, many of which persist today.

This history has left artifacts of many kinds that condition the present situation and influence the future prospects of private forest lands. Some of the main features of this heritage can be mapped and these maps make it obvious that we are not dealing with a single homogeneous region. There are probably as large differences within the northeast as there are between it and other regions.

Map 1 deals with the pattern of settlement and shows where people are concentrated in relation to available forest area. Thus, there is less than 1 acre of forest land per person in the black areas along the Boston - Providence and Springfield - New York City areas, and in the Albany, Syracuse, Rochester, Buffalo areas. At the other extreme we find 10 acres per person in much of Maine, Northern New Hampshire and Vermont and the Adirondacks and Catskills.

Although this pattern suggests where people live, and therefore where living space chiefly sets land value, Map 2 shows the zones where these same people congregate for summer and winter recreation. Because many townsmen own second homes in and near these areas, they also control a good deal of the forest land. In addition, city people who travel to and from these spots see and respond by their politics to many forms of land use they think are inappropriate.

Map 3 shows where forest land is concentrated and we can see that, as expected, forests are heaviest where people aren't. However, it is significant that, aside from the area around the mouth of the Hudson and the farm and industrial lands of western New York, every place is more than 40% forested. Thus, if we use European standards, practically all the land outside New York City and environs is heavily forested. Even in the most populous counties, residents are likely to see and react to forest management practices.

Map 4 suggests that forest industries have largely adjusted to existing populations of people and trees. The concentration of jobs in the middle Connecticut Valley is due mainly to secondary manufacture of paper products from imported furnish, but the northern New England predominance is due to primary forest-based industries drawing on local woodlands. The data are sketchy in New York but we know that forest industrial employment is also important in the Adirondacks.

Forest industry land holdings are concentrated in the north, away from high residential values. However, the build-up of outdoor recreation since the '50's and of second home buying since the '30's has carried competition for land into the north country so that some forest companies now have active real estate and/or resort operations.

Judging from this information, Map 5 seems to be a reasonable working collection of those counties with more or less common forest land use problems and prospects. The urban forest area where land use problems are resolved in close proximity to dense settlements is well defined by the region with less than 1 acre of forest per person. Amenity and living space values take precedence in this urban forest. The fringe area is still reasonably close to many full time residents, but with 1 to 10 acres of forest per person, there is space for a variety of land management practices. Amenity and real estate values remain high, but there is also room for the melding of wildlife, recreation, watershed and timber production. Beyond, with over 10 wooded acres per resident, lies the hinterland forest where year-round residences are sparing-

ly scattered and wildlife, recreation and timber production are dominant themes of management.

In northern New England, especially in Maine, there is a large segment of industrial land where management is strongly influenced by market forces as modulated by federal and state holdings and by legal constraints. The Adirondacks also have many large tracts owned by, or associated with, nearby wood-using industries so that logging and manufacture are important elements in the local economy. Land management decisions are complicated, however, by important and pervasive recreation and amenity values coupled with the concept of the Adirondack State Park and the responsibilities for land use regulation delegated to the Park Agency.

The map of urban, fringe and hinterland forests should be viewed only as a statement of central tendencies. Reality is more complex, with bits and pieces of all three forests intricately interdigitated over much of the landscape. However, the urban forests of the south do tend to dominate thinking there, while the hinterland and fringe area problems predominate further north. These conceptual regions may assist discussion and suggest where fresh ideas can most appropriately be applied.

None of our northeastern states is so isolated in forestry matters that it stands alone. We are all knit together by a web of economic and social forces which is largely beyond our control. Although we can considerably influence our local forest land use system, in a very real sense it will also respond to larger outside forces. In thinking about our future we

must give attention, therefore, to basic assumptions about how these factors are likely to behave.

Our capacity to foresee long term developments in forest land use is very limited. However, the combined effect of the following factors is likely to have a dominant impact. These are only reasonable suppositions, not forecasts, of events during the next ten years.

Demographics

The post-war baby boom peaked in the mid 1950's and the last of that demographic wave will form families and seek housing during the 1980's. But birth rates have declined so the population as a whole is aging. Families are being formed at later ages than before, couples are choosing to have fewer children and more choose to remain childless. These effects add to a slower overall population growth, but each effect separately has important implications for northeastern forests. Regional differences in these population processes and in the overall level of population growth will remain strong as people adjust their residences and second homes to job opportunities, environmental attractions and differences in the costs of living and travel.

Public Mores

Citizens will remain litigious and prone to promote simplistic solutions to complex problems. Science and technology will continue to be viewed with suspicion on the one hand but relied on to solve technical problems on the other. The application of science to pragmatic problems will remain encumbered by this paradoxical public attitude.

Concern for the environmental impacts of all kinds of land uses and economic activities will not abate. However, little new legislation is likely to be passed and, as their full costs become apparent, some present standards will be relaxed. High cost standards, set primarily for amenity, are more likely to be changed than are those set for health protection. Inexpensive amenity standards will persist or increase.

The Private Market System

Coping with high energy costs will be a central feature of many economic activities. Gasoline and home heating oil prices in the range of \$1.00 to \$2.00 per gallon are likely to prevail. Those high prices will increase the costs of transporting materials into and out of the region, and greater economic self-reliance at the regional level can be expected. Similarly, commuting long distances by automobile to jobs and second homes will become expensive enough to induce some shifts in residential location and other land use patterns. Wood will become still more desirable as a source of energy both through conversion to heat and through substitution for building materials that require more energy to produce.

Continued oil imports will force the United States to struggle with a balance of trade deficit, and the dollar will stay low relative to other currencies. Therefore, demand for exports will rise and imported products will become more costly.

The economy will see unemployment at a national rate of 5% to 6%, but local and regional pockets where this level is exceeded by a significant

margin will persist. Periodic-short term recessions will raise unemployment and stifle demand in the pulp, paper and solid wood industries. Inflation will be only partially constrained to the 5% to 10% zone. As one consequence of inflation, market interest rates will remain high, in the range of 10% to 15% while real interest rates will hover between 5% and 10%.

Aside from moderately short downturns caused by periodic slowdowns in the economy, both softwood and hardwood stumpage prices in the northeast will continue to rise faster than the overall level of inflation. This upward trend will increase the amount of timber which is harvested, but its effect on improving timber management for the long term is much less certain. As stumpage prices rise, timber production will, in some places, be able to bid land away from other uses.

The Political System

The motives of big business and the capabilities of big government will continue to be doubted. However, in a crunch, the federal government will be asked to take an active role in steering the economy and society.

Although most landowners will continue to defend their right to make untrammelled land use decisions, the public will ask and get more state and local influence over land use through zoning, special tax treatment, direct subsidy, regulation and technical aid programs. Help in these local and state initiatives will be sought from the federal government, and federal legislative guidance and financial support may be forthcoming.

Because of inflation and general discontent with government performance, opposition to rising taxes will remain high enough to keep governments underfinanced in light of rising demands for public services. This will bring a new emphasis on cost effectiveness and will make public service a more demanding occupation.

Nevertheless, as more states move to 100% assessment, taxes on forested land will increase both in absolute amount and relative to taxes on other forms of real property. Because the public cost of special tax treatment is hard to estimate and is not subject to highly visible annual appropriation as is a subsidy, special interests groups will make more than normal efforts to get favorable tax treatment rather than subsidies.

We can summarize the impact of these various forces on forest land use over the next decade with the following set of working hypothesis:

Residential Housing

Demographic forces already working will insure strong national housing demand during the penultimate decade of this century. Toward the end of the decade and into the '90's, housing starts are likely to decline. Overlaid on these aggregate trends are shifts in the housing mix away from traditional single family homes to multi-family units and condominiums which offer land and energy savings. Home ownership will be desired as a good investment. Residential construction in the exurbs is likely to decline with that demand shifting to existing suburban developments through in-filling and increased density. More wood will be consumed in remodeling and renovating old homes. Cyclical downturns in housing markets will

depress stumpage and lumber prices periodically but the overall price trend should remain upward.

Second Homes

Demand for distant places which are off public transportation will slacken while the desirability of nearby locations will increase. Sites with cheap access will be seen as good investments because real interest rates will be moderate. The net result will be a slower overall growth rate in second homes and a pull back toward population centers. In the 90's demand for second homes will increase as the population ages; some of the slack in wood product markets caused by the declines in residential housing seen in that period may be taken up by this increase in second homes. Second home construction will decline sharply in recession years.

Outdoor Recreation

The idea of "wilderness" will remain popular but most forest demand will be for primitive areas for the young and an increasing demand for car campsites for older people and those seeking cheaper vacations. Tourism will decline, cheaper low-equipment recreation will increase, especially if nearby or accessed via public transit. Individual stays will lengthen in distant areas, with fewer people going long distances. Some group transportation will develop for resort areas. Home and local recreation and recreation investment will increase. In recession years high cost recreation will decline sharply, low cost areas will have considerable increase in use.

Hunting and Fishing

Distant activity will decline and that near population centers will increase. This trend will favor local fishing and small game hunting. There will be an overall decline in hunting (except perhaps for bow hunting) and an increase in fishing. Little change in these trends will be seen in recession years.

Wood Production

Higher prices will prevail in the region because of strong national demand for wood products, strong export demand stemming from a weak dollar and rising transportation costs for shipping southern and western lumber and pulp into the region. Stimulated by higher stumpage prices more wood will be cut, but management intensity will not increase unless continuation of high prices is widely perceived as very likely. More fuelwood will be cut and woods utilization will improve. Rising wood prices will improve the investment appeal of long-term timber production as well as its value as a hedge against inflation, and the inventory created will also be a desirable source of emergency funds. However, multiple use values will remain very strong in the region. Log and pulpwood prices will decline during recession years but fuelwood demand will remain high.

Landownership

Land will appeal as a good investment for recreation, living space, an inflation hedge, second homes, wood production -- i.e., multiple use values. Close-in land will appeal more than distant land without public transport access. Land will be held as a retreat of last resort, provided carrying costs are acceptable. Recession will increase the appeal

of landownership as a source of stability. Special tax treatment will increase the desirability of owning land, but may also slow land transactions.

How close to reality these regional working hypotheses are will only appear as the future unfolds. In addition, the capacity of landowners, industries and the government agencies in each state to cope with these or any other changes imposed by outside events will have a critical effect on the detailed development of forest land use.

The rising cost of energy, especially oil, for heat and steam, is having a significant impact on northeastern forests, the full significance of which is not yet apparent. The stumpage price of fuelwood now rivals that of pulpwood and new plans for industrial and home heat suggest that demand will continue to rise.

This resurgence of wood for fuel is reminiscent of the turn of the century when half the economy's energy came from wood. Since that time fuelwood declined so rapidly that it released enough volume to offset most of the volume increments in pulpwood, lumber, chipboards and the like. The fact that the nation uses little more cubic footage of wood today than it did in 1900 is partly due to substitution of non-wood materials, but in a very large measure also to the decline in wood as a fuel. With this trend reversed, one wonders how long it will be before some of the more populous wooded states like Massachusetts will be cutting more than growth. Harvesting is already having such a noticeable visual impact on some rural towns that there is an active

search for appropriate forest by-laws to prevent the most egregious effects.

The new fuelwood value is a golden opportunity to get rid of the low grade hardwoods that take up so much growing space in our forests. This would leave our stands in a much better condition for the rapid growth of high quality trees. Alternatively, all trees can be cut for fuel regardless of their future growth potential, and this is likely to be the easiest and cheapest course to take in the short run. If we wish to grasp the tantalizing promise that fuel values offer for future growth, it will be necessary to somehow divert present market forces. There are many ways this can be done ranging from public efforts to educate owners and loggers, the provision of special cost sharing payments and tax inducements, setting minimum standards to govern woods operations, to such private efforts as reforming wage systems that promote poor logging, setting stumpage prices that favor skillful woods work, formation of cooperatives and greater use of consulting and industrial foresters. There is no real lack of means provided our will and vision are strong enough.

But all of these external forces will come to naught if landowners are unable or unwilling to manage their lands. There is every reason to believe that the public lands in the region command the necessary human resources needed for positive management. There is also plenty of interest in having public lands produce a variety of goods and services. Similarly, the forest industries have the need and the organizational resources to do a good job of producing wood products on a continuing basis. Most of them are also

aware of the need to protect public water, wildlife and amenity values at the same time. The same can be said for most of the other owners of larger holdings such as clubs, associations, undivided ownerships and private individuals. All told, these lands total about 46% of northeastern commercial forest -- a very substantial portion that can be given positive management under present conditions.

The remaining land is held in parcels of less than 500 acres and the capacity of the owners to manage it and their desire to do so is not entirely clear. The owners of such tracts make up 99% of all private owners, over 670,000. Such studies as we have suggest pretty clearly that these folk hold their land primarily for its value as a place to live, for recreation and amenity and as an investment. Less than 5% have timber production as a primary purpose. This confirms the need for forest land management aimed at providing a flow of many goods and services over time. Steps to coordinate amenity, wildlife, water and timber values will be necessary to get these people engaged in forestry that will benefit themselves and the public.

The job of reaching these folks will be vastly simplified if the owners of less than 10 acres are not approached individually. They make up 56% of the total number and own only 8% of the land. The other 92% of the forest is controlled by 45% of the owners in plots from 10 to 499 acres. Studies show that the owners of larger tracts are most likely to take positive management steps. The smallest tracts are largely devoted to

living and investment purposes which require special practices to fully realize. It used to be thought that relatively little wood was cut from such holdings. However, a survey of people who burn wood in Massachusetts showed that about half of it was cut by the users themselves on their own woodlots, which were generally less than 25 acres in size. Thus, the rising interest in energy may bring these smaller holdings into active wood production, but the product may not enter the market.

Summary

Let us review again how economic, legal and cultural forces are affecting the outlook for private forest land in the northeast. We seem to be emerging from a long period when cultural demands greatly influenced the actions of most private owners who were not somehow connected with a forest industry. Few of these non-industrial folks cut products and most wanted to realize a complex set of satisfactions from owning land. So long as land was inexpensive, carrying costs low and stumpage cheap it was easy to give primary emphasis to psychic income, but those days are gone forever. Land prices, interest rates, taxes and wood values are all up and this has given economic values more clout. These owners are still interested in cultural values but they are less able to afford them without some help from economic activities. So there is no less interest in multiple use but there is more incentive for finding new, more satisfying compromises and more effective coordination.

Over the last few decades the balance of forces worked out so that drain was less than growth and forest inventories accumulated in the northeast. Now, however, changes promise to reverse this situation so that we may move from glut to stringency as the backlog of accumulated timber is worked off.

Finding a new balance is complicated by the fact that as economic forces quicken there is also public disillusionment with government programs and tax burdens. Although this may not last, the present mood seems to favor a smaller role for government and a larger one for private enterprise. Cultural values, meanwhile, are about stable.

It seems obvious that under these circumstances any legal moves must be designed with exceptional care to achieve worthwhile ends that are generally perceived as critical, and do it with a minimum of effort. To be successful in today's political atmosphere any new public venture must be selective and cost effective.

From what we already know nearly half the forest land is public or in large holdings whose owners are quite capable of managing with little aid and a minimum of guidance from society. The owners of the other half, however, need help. Today most of them rely on loggers for technical advice. As this diagram shows, the logger is a central figure in our present forest scene. He not only buys about half the stumpage, but he is a prime source of information on prices and is the only representative of the market and forestry that most owners ever see. He also puts into effect practically all the silviculture that is done on the ground.

Unfortunately, the logger is also the least well trained and financed of all the actors in the forest system. Also because careful woods work takes extra time, it directly reduces his pay check by cutting down log delivery at the mill. Thus financial incentives favor the fast and sloppy operator.

When these ideas are added to the fact that there are many landowners and only a few loggers, it is clear that public attention might be most cost effective and efficient if given to helping loggers become better business men and more skilled and sensitive operators. Any new public or private initiatives should have it clearly in mind that the first step in the wood extraction system

is the weakest link, so that the private market system puts its worst foot forward. This situation must be changed before we can hope to strike a balance among forest land uses that everywhere benefits both the owner and the public.