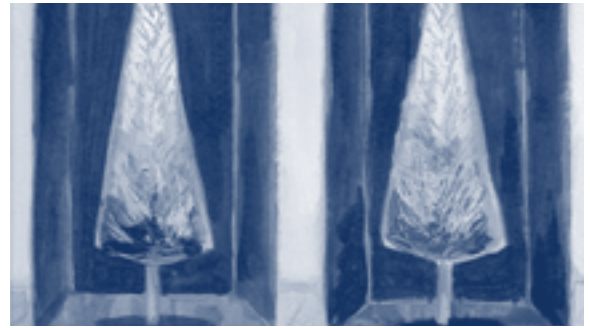


U.S. Forest Ownership: *Historic and Global Perspective*

by Lloyd C. Irland



Mainers once enjoyed the sense that Maine's vast forested lands would forevermore be a feature of the state's landscape and cultural heritage. But, this sensibility has been threatened by fragmentation and sprawl and rapid changes in ownership. According to Lloyd Irland, Maine is not unique. The U.S. is facing a crisis of sustainability in forests and rural communities. Irland provides a brief history of forest ownership in the U.S. and analyzes some global trends to help to explain this crisis. He suggests Mainers look to experiences elsewhere in the nation and the world to come up with a new mix of private institutions that can sustain ownership and management of large tracts of forest for the long term. 🐉

INTRODUCTION

The owner of a piece of real estate profoundly affects how the land is used, who can use it, and how the benefits and costs of its uses are distributed. For this reason, resource economists and political scientists have always paid close attention to property ownership and to its effects on society. In this country, forest ownership is and always has been a contentious issue. Over our country's history, U.S. forests have seen a series of major changes in ownership. We are now in the midst of another such change.

This current rearrangement of forest ownership reflects our highly mobile society's emphasis on consumption goods. Forests once mainly owned for production purposes by land barons and railroads and later by the forest industry are being converted to a consumption good, that is the land is used to satisfy the needs or wants of an individual or a community, but not used in the production of anything else. These new ownership patterns are leading to the fragmentation of forestlands and to dispersed development that will not be readily reversed in the future. By presenting a brief history of forest ownership and a discussion of global trends, I hope to explain the crisis in sustainability that I see facing U.S. forests and rural communities.

HISTORY OF FOREST OWNERSHIP IN THE UNITED STATES

When the first European explorers stood on North American shores, native peoples managed rights to land and resources on principles entirely alien to the European newcomers. The early European explorers planted banners in the sand and claimed the land for their monarchs, ignoring the claims of the native peoples and establishing a European system of landownership. The monarchs, who needed money to keep their empires running, used the land as trading stock to get private investors to settle the land, to develop ports, and to find productive mines to enrich royal coffers.

Some of these new landowners surprised everyone with their vision, ability, and energy, and forged new communities and industries. They brought new crops to the "New World" on which they built new econo-

mies and land uses. Some of the land barons of this time did not leave behind a place name on the map. Yet by their methods of distributing land to settlers, they left a calling card on the American landscape.

On today's air photos, you can see the field boundaries of the old arpent lands along Maine's St. John River and along the Mississippi River (arpents are the long narrow fields that begin at water's edge and run up to the ridges to give farmers access to the water along with a sample of land types; the term originally denoted a measure of land area). Plats in New Mexico still reflect the Spanish grants, and titles from the Russian period still exist in Alaska.

As the European settlers divided this seemingly unlimited land, they began to ignore the old European medieval institutions regarding landownership. Europe had developed customs and laws governing the inheritance of property that passed the entire estate to the first-born child, or in the absence of children, to other relatives in order of seniority. European society recognized that there was a profound social interest in keeping estates from fragmenting ever smaller with each generation and also in allowing public access to private lands. In the "New World," however, these customs and complex medieval land rights have evolved into a view of land as mere fungible "Monopoly®" money.

CURRENT LAND OWNERSHIP PATTERNS

The nation's public estate includes 319 million acres of forest, counting shrub and woodland (43% of the total). The nine Northeastern states now own twice as much land as the federal government owns in the region. Virtually all of that state land was acquired since the 1890s. Pennsylvania and New York had especially large land-acquisition programs. In the Lake States, the Great Depression resulted in the nearly complete collapse of private ownership. The owners

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handed the deeds to millions of acres of stumpland and fire-scarred aspen back to the counties. Counties and municipalities kept millions of acres of tax-forfeit lands. These lands, acquired from the 1920s to the 1940s, form the base of a locally managed public forest estate that is almost as large as the federal ownership in the region. In the South, due to long-time hostility to public ownership, and a history of impoverished state governments, the states own only a quarter as much as the federal government.

In 2002, the forest industry owned a total of 66 million acres, down slightly from its all time peak. It is interesting to compare industry's ownership role to the federal landownership. In the 1990s in seven northeastern states, industry owned far more land than the federal government. In the Northwest, by 1997 industry owned half as much timberland as the federal government did.

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Over the half century from 1953 to 2002, U.S. forest area and total public and private ownership barely changed. The states were active acquirers of lands, gaining more than the forest industry. The non-industrial private forestland (NIPF) owners sold, on net, only a small area. Today state, county, and municipal governments own more land than the forest industry.

Up until the 1990s, the publicly traded blue-chip paper company seemed a permanent feature of the forest landscape. This enterprise owned mills and dominated national and regional markets. It conducted its own research on mill and paper technology, owned extensive timberlands, maintained a force of foresters and technical workers to manage those lands, invested in plantations, and conducted forestry research. Outside of North America, such enterprises existed only in Scandinavia, Oceania, and South Africa. Several are emerging now in Asia.

In North America, however, the blue-chip model is unraveling. A few paragraphs here inevitably oversimplify a complex story (Neilson 2003; Block and Sample 2001). Stiffening international competition is driving manufacturing margins down. Major markets are mature or even shrinking—U.S. consumption of newsprint fell 8% from August 2004 to August 2005. A complex of forces has prevented construction of new world-class mills, placing the paper side of the business on a grim downward path. The quickest thing an overextended company can do to improve its balance sheet is to sell land. Company managements believe they can control fiber supplies through long-term contracts rather than through ownership of forests. They no longer fear being wood buyers, and their advisers are telling them to sell the land.

In 1981 there were six industry owners that each owned more than three million acres of land. In 2004 there remained only three, and between them they hold 21 million acres of land. A small number of people—the majority on three corporate boards—hold in their hands a commercial forest area larger than the national forests of Oregon and Washington combined. From 2003 to 2004, the top 10 industry owners sold nine million acres, their remaining ownership falling to 31 million acres by year end 2004. Industry ownership topped 70 million acres in 1987, according to the USFS. By 2003, it had fallen below 50 million and was still heading downward.

Maine presents an extreme example of how swiftly this can change. A decade ago, industry still owned eight million acres or more of the state's remote wildlands. By late 2004, U.S.-based industrials owned nothing, and Canadian-owned firms still held about 10% of the state.

A recent report by the Manomet Center for Conservation Science (Hagan et al. 2005) examines the Northern Forest, its forestland turnover, and the possible impact this may have on biodiversity (the Northern Forest consists of the forested regions of northern New York, Vermont, New Hampshire, and Maine). From 1980 to spring 2005, more than 19 million acres were sold in this region (this counts only tracts larger than 100,000 acres), which is equivalent to the entire land area of Maine. Some of this land

was sold several times. We classified the large sales into categories: breakups (24.6%), sale with mills (21.5%), takeover (14.7%), sale with fiber contract (14.9%), merger (15.0%), sale of intact ownership (5.6%), other (3.9%). So, when we say that 19 million acres were “sold” over this time period, the term conceals a great diversity of motives and effects.

The privately held company and the family ownership, suitably structured, have so far demonstrated better longevity and resilience to stress than has the modern, blue-chip, vertically integrated corporation. This may be a reflection of the traditions, values, and culture within these families, whose leaders see forests as more than just financial assets. In Maine, their land sales have been modest. A changing economy and unwise policies, however, threaten to undermine the economic conditions that enable such ownerships to continue.

What's a TIMO?

Who in 1970 would have imagined trading futures on the S&P 500? More to the point, who in 1990 would have imagined that by the end of the year 2004, organizations called timber investment management organizations (TIMOs) would be managing 13 million acres of forestland on behalf of investors? A TIMO provides professional management to portfolios of managed timberland owned by investors.

The TIMOs were able to attract ever more capital. At the end of 2004, the leading TIMO in acreage was Forest Capital Partners (they bought the former Boise lands). This TIMO held more land than the fourth-ranking industrial owner (Temple-Inland) at that time. TIMOs are now firmly institutionalized in the forest landscape, and they vary in management practices and outlook. While there is no firm rule, many plan to own the land for a period of eight to 12 years, selling on a schedule determined by their investing sponsors. Ownership of these lands, then, has changed from owners who held for long periods of time, sometimes several decades, to owners with much shorter plans.

Will the TIMOs be just another actor in a long history of forest ownership, or will they be forced to become subdividers and slowly pass out of existence? It is too soon to tell. Market forces will dictate the answer.

Third Sector: Private Nonprofit Conservation Landowners

An emerging trend is the role of the nonprofit organizations as owners of forestlands or of interests in large, managed-forest ownerships. Thousands of local land trusts, scout camps, state Audubon societies, hunting and fishing groups, and similar organizations own small patches of land with local conservation significance. Some nonprofit organizations own large forest tracts such as the Nature Conservancy's 175,000-acre tract along the St. John River in Maine. Based on admittedly weak data, we may suppose that nonprofit organizations own some 12 million acres nationally, about as much as the TIMOs.

An important innovation during this period took the form of large working-forest conservation easements. No comprehensive inventory exists, but across the Northern Forest, some 2.5 to 3 million acres are covered by large-scale easements that prevent future development.

A Tidal Wave of Sprawl

When the history of land use and ownership of this period is written, it will be clear that the ownership rearrangements described earlier in this article are less important than the grand tidal wave of sprawl now sweeping over the nation. Sprawl now penetrates far into the remote corners of the northern woods, into the mountain valleys, and across the dry woods and shrublands of the Southwest.

Long-distance leisure travel has become swift and safe with the completion of interstate highways into remote regions. Long-distance commuting, with or without four-day work weeks and Internet/fax communication, has become increasingly common. Suburbia now extends three to four hours beyond cities, not just 45 minutes as it did in the 1950s, and it has become a disposable landscape, all grid subdivisions and malls. While urban land more than doubled, increasing from 18 million acres in 1950 to 66 million in 1997, the population only rose by 77% during this same time. We are using land like spendthrifts.

A recent U.S. Forest Service report (Stein et al. 2005) predicts that by 2030—only 25 years from

now—21.7 million acres of rural land will shift from rural or exurban to urban; an additional 22.5 million acres will shift from rural to exurban. Some land will shift from farming to forest over this period—but these will be parcels that are already highly fragmented. This study identified the top 15 watersheds nationwide with the highest predicted increases in housing density—three were in Maine. This follows the well-known Brookings study that noted Portland’s high rate of land consumption relative to its population growth (Fulton et al. 2001).

The USDA’s Economic Research Service (ERS) estimates that one million acres per year of rural land are being converted to “rural residential land.” This rural residential land constituted 73 million acres in 1997, and 44 million of this was in tracts of 10 acres or larger. As Evan Richert (2004) notes, this land will shift from being a productive resource to a consumption good.

The grim truth for forestry today is that at the prices suburbanites are ready to pay for 10 acres of rural land, no one can afford to grow wood on it. Policies such as use-value taxation or other aids to private forestry were never designed to cope with today’s land prices and real estate demands. They are a six-inch levee facing a 20-foot storm surge. The implications of these new ownership patterns go far beyond mere timber availability. They affect the kind of a rural society that will survive and the kind of access to wildland will exist in 50 years.

The ongoing privatization of formerly public resources is of enormous importance. On the outer suburban fringe as well as in remote areas, “Spersopolis” (John Fraser Hart’s [1998] term, referring to dispersed low-density roadside sprawl, with no large population centers), is spreading, isolating land from views and access and fragmenting habitat. The concept of shadow conversion—that building on one acre compromises rural uses on three to five acres—applies with extra force in the forest.

GLOBAL COMPARISONS

Several striking points about the United States in comparison to the rest of the world deserve notice.

1. In the past, the United States has placed heavy reliance on the corporate form of ownership to own forests and to provide wood-based materials. This occurs only in a few other parts of the world. As investment in plantations and mills in the tropical and subtropical world accelerates, this will begin to change.
2. Tragically, the record of management on government-owned lands across wide swaths of the globe has been dismal. This is true whether the management objective has been wildlife or nature conservation (paper parks), timber supply for communities and the economy, watershed protection, or grazing. This reminds me of Churchill’s remark, “We have the worst system in the whole world—except for all the others.”
3. Compared to other nations, our public estate emerged largely by accident. Its uses are now shifting to reserves and recreation and to providing green backdrops for wildland subdivisions and resorts.
4. Compared to other nations, the United States has built a large and growing nonprofit “third sector” that is increasingly active in ownership and management of land.
5. Unlike other countries, public rights of passage on private lands in the United States are limited in all but a few local areas.
6. Unlike in other nations, the United States does not have a hereditary landowning class with sufficient amounts of land to matter from a production or environmental standpoint.

MARKET VS PLANNERS— TORN BETWEEN EXTREMES

The “free market” is indeed free: free of responsibility and accountability. Owners are free to ignore the future, free to act in ways that generate short-term gains for themselves and that push long-term costs

onto other people, the environment, and the future. But, in my opinion, land does not pass many of the tests that must be met for free markets to be socially optimal. While acknowledging this claim, we can still be uncomfortable about the way many of these problems are fixed by people with little acquaintance with reality other than through maps, textbooks and geographic information systems (GIS). James Scott's 1998 book, *Seeing like a State*, provides chilling cautionary tales. Property rights cannot not be treated as mere inconveniences to be tossed aside thoughtlessly, but we have to reach consensus on what property rights really mean. In our polarized, increasingly dysfunctional political culture, this will not be easy.

IN CLOSING

By historical accident, demand for remote forestland was limited after the first round of lumber companies finished with it. Today, however, the economic picture has changed. Land is in wide demand as a consumption good. Remaining rural communities in the West are now seeing their way of life, always at mercy of distant markets and capitalists, further threatened by events in distant courtrooms and committee rooms. Gentrification and planned deindustrialization are well underway.

Some things we must do:

- Complete the terrible chapter of our relations with Native Americans by settling remaining conflicts over their rights to land and its resources.
- Immunize more privately owned wildland against subdivision and sprawl. We need bold new thinking about ways to accomplish this, such as David Foster's *Wildlands and Woodlands* proposal for Massachusetts (Foster et al. 2005).
- We need new ideas about the uses of public and private lands as they relate to wood production. The notion of "stay off the public lands, let the private lands produce our wood," is soon going to be obsolete. Those private lands are converting to private reserves

and backdrops for "starter castles" instead.

- We need further efforts at using wood more efficiently because the day of forest abundance is coming to an end. Increased dependence on imported wood is surely possible and already is happening.
- We need new ways to secure public access to private lands. Elements of our European heritage on this point were unfortunately left behind there.
- We must learn to manage suburban and exurban growth better and to legalize efficient use of land. The areas most at risk of land-use conversions and fragmentation are under control of local and county governments, which have the weakest land-use controls. At the same time, these controls are often the most perverse from the viewpoint of efficient land use (arbitrary minimum lot sizes, bans on multiunit housing, etc.). In more than a few instances, loss of industry in rural areas makes these regions even more desperate for development.

We must examine experience from around our country and from other nations to devise a new mix of private ownership institutions capable of sustaining forest ownership and management in large tracts for the long term. Some of these may seem fanciful today, but our situation is unprecedented and demands major innovations. Options include ways to enhance the survivability of what we already have: tribes, bands and nations among the Native American landowners; publicly held vertically integrated corporations; institutional investors; charitable investors; private families, estates, and trusts. We should look at more radical notions: a new form of post-feudal, entailed estate that is built for extreme durability and is held in a portfolio such as a 100-year bond. We need stronger

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institutions to enable small owners to act collectively through farm cooperatives or other groups.

I recently entitled a presentation, "What good is sustainability if we have no forest?" This was not merely in jest. The only thing worse than the unplanned destruction of the forest will be the planned destruction of the forest. We will see much more of this in our lifetimes. I believe future generations will curse us for it. 🐸

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REFERENCES

- Block, Nadine E., and V. Alaric Sample. *Industrial Timberland Divestitures and Investments: Opportunities and Challenges in Forestland Conservation*. Washington: Pinchot Institute for Conservation, 2001.
- Foster, D.R. et al. *Wildlands and Woodlands: A Vision for the Forests of Massachusetts*. Petersham: Harvard Forest, 2005.
- Fulton, W., R. Pendall, M. Nguyen, and A. Harrison. *Who Sprawls Most? How Growth Patterns Differ Across the US*. Washington, DC: Brookings Institution, Center on Urban & Metropolitan Policy, 2001.
- Hagan, John M., Lloyd C. Irland, and Andrew A. Whitman. *Changing Timberland Ownership Patterns in the Northern Forest and Implications for Biodiversity*. Brunswick, ME: Manomet Center for Conservation Sciences, Report MCCS-FCP-2005-1, 2005.
- Hart, John Fraser. *The Rural Landscape*. Baltimore: Johns Hopkins, 1998.
- Neilson, Dennis A. "Forest Ownership by Corporates—A Thing of the Past?" *New Zealand Forestry Journal* 48.1 (2003): 3-7.
- Richert, Evan. "Land Use in Maine: From Production to Consumption." In *Changing Maine*, edited by R.E. Barringer, 211-236. Gardiner, ME: Tilbury House, 2004.
- Scott, James. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press, 1998.
- Stein, Susan, et al. *Forests on the Edge: Housing Development on America's Private Forests*. USDA FS PNW RS Gen Tech Rept PNW-GTR-636, 2005.