

Non-Industrial Private Forests and Their Owners

The importance of non-industrial private forests (NIPFs) to the overall forestland picture in the United States cannot be overemphasized, and the statistics that tell this story abound. In total there are an estimated 747 million acres of forest in the U.S. (amounting to 7% of the world's forests.) Of this, 63.3% (or 472 million acres) is private—80 million acres of industry land and 393 million acres of non-industrial land (NIPFs). So approximately 4% of the world's forests are owned by 10 million woodland owners in the U.S.

There is no other country in which private citizens are responsible for so much ecological wealth. This is a great opportunity for forest conservation, and so over the last few years the role of small private landowners has been the topic of much thought and discussion. Consulting foresters, county extension agents, and policymakers at the state and federal level are scratching their heads, wondering how to engage these 10 million landholders across the nation, hoping to get them committed to forest management over the long term and save millions of acres from development.

However, despite the hard work of many, it is an opportunity that still somewhat eludes us, and woodland owner associations sometimes complain that it is unrealistic to expect NIPFs to profitably meet the conservation goals of the rest of the country. Unlike other categories of ownership in the U.S., private forestlands are increasingly fragmented and sold for development. Every year approximately 2 million acres of NIPFs are broken into pieces smaller than 100 acres (Birch 1996). Decreases in parcel size limit the viability of timber management and increase the likelihood of transferal to individuals who are not interested in

actively managing the forest. These and other factors increase the probability of eventual conversion to non-forest cover, and between 1982 and 1997, 11.5 million acres of private lands lost their forests (Birch 1996).

There are other disturbing statistics indicating that the quality of forests are declining as well. For example, in the last 20 years the average diameter of hardwoods harvested on private timberlands in the South has decreased by 20% (RPA 2000). For softwoods the decrease is even greater (27%), but this is largely driven by conversion to plantations. Interestingly, the greatest decline in size for these two decades occurred in the Rocky Mountain region, where the average diameter harvested in 1997 was 49% smaller than in 1976. The only exception to these declines are the northern hardwoods, where average diameter harvested increased 6.7% over the same period. But the oft-cited rebound of the Northern forest is mostly due to mid-century abandonment of farms, and may not hold up over the long-term. Therefore, the role of NIPFs in preserving U.S. hardwood forests is especially critical. With most of the federal lands located in the West, and the industry focusing on softwood fiber production, NIPFs own almost four times the hardwood volume found on the combined holdings of industry and the Forest Service, or 71% of the total national inventory (RPA 2000).

Fragmentation trends have been countered in the field by extension agents and public and private foresters. By linking with forestland owners they have encouraged participation in state and federal programs, most of which lead to the development of forest management plans (FMPs). Their efforts employ many tools that will help to retain ownership and improve stewardship. The

most notable of these is the Stewardship Incentive Program (SIP), which provides tax-incentives for landowners to work with foresters in developing forest stewardship plans. Other approaches include an evolving set of conservation-oriented tools like easements, bargain sales, and several types of tax-saving donations (e.g. land trusts). The former encourage landowners to keep and manage their lands—the latter to transfer title to those who will ensure they remain as forests.

Some states have been more successful than others in reaching their forestland owners. Overall, most states report that the percentage of NIPFs that have developed management plans is still relatively low. For example in Pennsylvania, Oregon, and Wisconsin less than 20% of the NIPFs have formalized management plans (Finley and Jacobson 2001; Reed 2001). This still is quite an accomplishment for these NIPFs and the agencies that are working with them. It means that 100,000 owners in Pennsylvania have plans. But it also indicates that the 400,000 citizens who own the remainder of Pennsylvania's 12.6 million acres of NIPFs do not. Moreover, there are an additional 40,000 new owners in Pennsylvania every year who must be reached (Finley and Jacobson 2001). Similarly, Alabama's admirable "TREASURE" forest program has enrolled 1,600 forests comprising two million acres; but again, as the nation's second most forested state, the bulk of the acres and owners must still be reached (Glover and Jones 2001).

So far a relatively limited percentage of landowners have the tools that will help them, in the end, afford to keep their forests. The programs that these states administer focus heavily on improving forest management, through voluntary adherence to

guidelines like Best Management Practices (BMPs). These and other tools help owners manage for timber in an environmentally responsible manner; but while they are crucial elements for maintaining the ecological health of the nation's forests, they can be a net "cost" to the landowner—both in time and money. Moreover, the challenge of getting owners to stick to the guidelines falls heavily on the shoulders of an overextended cast of state and county organizations. In the end, few states have a good sense of how many program participants are using the tools that foresters helped develop and how this then affects long-term ownership decisions (Ellefson et. al 2001).

Meanwhile the trends in the forest industry will also make it increasingly difficult for NIPF owners to profitably manage for timber, and thus offset the expense of keeping their land. Despite the best efforts of extension agents and consulting foresters, accelerating productivity and efficiency gains on industrial lands promise to widen the gap with NIPF costs for similar stumpage. Moreover NIPFs are increasingly farther from mills, which in turn are increasingly ill-suited for processing their timber, or even accepting their mode of delivery.

The outlook is troubling unless NIPFs can cover costs through payments for the other types of services they offer. Fortunately, proposals for this type of compensation continue to emerge. Conservation easements are becoming more widely implemented. Organizations like The Conservation Fund, The Nature Conservancy, and Pacific Forest Trust are providing materials and guidance that are now reaching many landowners (Best 2000). Among these groups, the Pacific Forest Trust (PFT) has helped distill the science on carbon storage in forests, to develop a pricing structure, and test the application of payment for forest-

carbon sequestration. The key for NIPFs will be to develop a management regime that merits payments for carbon storage. For example, the PFT estimates that to compete with development, carbon sequestration services will have to garner at least \$20/ton C to justify retaining forests in timber management on prime Douglas fir lands (Wayburn 2000). These returns are not considered unrealistic, but they must be ground-truthed with the emissions of CO₂ that they are supposed to offset. It is reasonable to envision NIPFs managed as a carefully-structured portfolio that profitably combines carbon payments, no-development conservation easements, recreational permitting, and timber management.

However, the network of state foresters, county extension agents, and consulting foresters, is not yet fully exploring this combination of options. Indeed, it is unfair to expect that all these approaches can be in their toolbox quite yet, since some are only now becoming feasible, and not everywhere. For carbon, requisite fee structures, binding legal agreements, and verification services are not fully developed. Even the more widely accepted tools like conservation easements vary regionally in prominence and compensation.

But perhaps the barrier to slowing conversion is not just the difficulty of reaching landowners with feasible and adaptable packages, but a misunderstanding of why forests are being sold in the first place. When asked, landowners are not necessarily selling because they are uninterested in forest management, or cannot cover expenses.

Recognizing the complexity of the factors entering the decisions faced by NIPF owners and the uncertainty on the fundamental reasons for conversion, the Pinchot Institute and Senior Fellow Catherine Mater, embarked on a study funded by

USDA's Wood Education Research Center. The study focused on "non-joiners," or those NIPF owners in the U.S. who are not members of a forestland owner association, and whose lands are particularly prone to conversion. The first goal was to document what NIPF owners say are the primary reasons for owning and selling lands, and what tools and assistance have been most useful in meeting their goals and dealing with other pressures. The study included a similar inquiry with state foresters, SAF chairpersons, and anti-growth/sprawl groups. It was based on in-depth interviews in 9 states with 107 landowners, 44 professional foresters, 25 environmental groups, and the Society of American Foresters (SAF) chair. The second goal has been to compare each set of responses, determining whether NIPFs cite the same issues and needs that are cited by the foresters and others who devise and deliver programs. Later, we will develop materials (e.g. handbooks) based on the insights from these analyses, to illuminate gaps between programs and needs, and suggest how current programs might be improved and other approaches developed.

Most of the interviews have been completed and compiled (ongoing interviews are targeting the offspring of the landowners that were interviewed.) The preliminary results paint an interesting picture that matches other similar studies, but differ in some crucial respects. The demographic aspects of the selected NIPFs closely match findings in other studies. For example, most of the parcels range from 50 to 500 acres (68%). Almost half (47%) of the interviewees have owned their land for more than 40 years. The remaining 50% break down as follows: <10 yrs.=14%, 10 to 19 yrs. = 13%, 20 to 29 yrs. = 15%, and 30 to 39 yrs. = 11%. For all NIPF owners in the study 63% purchased their lands and the rest inherited them. Other study

questions inquire about timber management experience, participation in government programs, and familiarity with a broad range of tools, like conservation easements and certification (Figure 1).

This data, and the questions asked of the other respondent categories, build a good foundation to understand selling and management decisions. One of the most surprising results, which bears more investigation, is the low ranking respondents gave to factors like estate taxes, government regulations, and management costs in making decisions on whether to keep their land (Figure 2). Instead, owners are more concerned by the lack of interest expressed by their children. An unforeseen emergency need for cash also figured prominently as a factor driving conversion both in the owner's lifetime and once transferred. Finally, medical costs were also cited as important. All three of these concerns are typically outside the scope of services provided by public programs and administered by public and private consulting foresters. They are more deeply sociological. At the very least

these types of responses highlight a need to re-examine the goals set for public policies and program delivery.

The Pinchot Institute is continuing with interviews and analysis, and developing a guide for several audiences. A handbook based on these results should be a valuable contribution to policy-level and field-based efforts to encourage NIPF owners to keep their lands as forest. These landowners need to be supported in the most effective manner if we, as a country, expect them to steward the nation's natural heritage.

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