A Profile of Woodland Owners in Central Appalachia

Prepared for the Appalachian Woodlands Alliance by the Sustaining Family Forests Initiative (May 2017)

This document contains a description of woodland owners in the focal area for the Appalachian Woodlands Alliance project, which consisted of 85 counties in Western North Carolina, Southwest Virginia, Southeast Kentucky and Northeast Tennessee (see Appendix for details of the project area). It triangulates information from different sources to compose a useful and holistic picture of woodland owners in this region.

The report draws heavily on data from the National Woodland Owner Survey (NWOS), the nation's most extensive and detailed survey of woodland owners. For this report, SFFI performed a customized analysis of the survey data for the project's focal counties. Unless otherwise indicated, all data are from the NWOS and reported as percentage of the total landowner population for the focal area.¹

NWOS statistics were supplemented with information gained from a review of the literature; our conversations with landowners and forestry professionals in the focal states; and our experience with other projects in these states. SFFI staff observed and interviewed area landowners at events hosted by the Appalachian Woodland Alliance in Morganton (NC), Abingdon (VA) and Kingsport (TN). We also spoke with forestry professionals at these events and conducted phone interviews with state and extension foresters in all four states. Phone interviews were also conducted with procurement foresters from Columbia, Domtar and Evergreen, who work in the region.

Family Woodland Owners in Appalachia

According to the latest data from the Forest Inventory Analysis (FIA), three-quarters (76%) of the roughly 14 million acres of wooded land in the focal area is privately held. Much of this is held by family woodland owners, although there are substantial tracts of land held by TIMOs, REITs and coal companies in some parts of the focal area.² The National Woodland Owner Survey (2011-2013) suggests that 42 percent of the total wooded acres in the focal counties are held by about 120,000 family owners who own 10 or more acres of woodland.

² Through our interviews with state foresters we learned that Eastern Kentucky and the bordering parts of Virginia tend to have higher proportion of land owned by coal companies, TIMOs and REITs.





¹ The survey data were collected between 2011 and 2013. The percentages reported here are extrapolated from a sample of 147 respondents who own 10 or more acres of wooded land in the focal counties. For more information on the NWOS methodology, please visit https://www.fia.fs.fed.us/nwos/.

- Most often, woodland ownership is shared and decisions are made jointly by family members.
 - Only about a quarter (26%) of ownerships in the project area are individual ownerships, while more than half (58%) are characterized as joint ownerships. The remaining are characterized as family partnerships or trusts; about a tenth (12%) of respondents said that the woods were owned by three or more people.
 - When land is jointly held, a man was identified as the primary owner in most cases (78% of the time). Similarly, the secondary owner was usually identified as a woman.
 These data reflect our experience that land is often held jointly by couples. However, almost a tenth of the ownerships (8%) in this region have a woman as the sole owner.
 - Whether land is owned jointly or individually, decisions about the woods often involve multiple family members, often spouses, children or siblings. This can sometimes complicate decision-making and make it more difficult to agree on significant actions like harvesting trees or investing in the woods. For example, state and extension foresters in Kentucky mentioned the difficulties of working with heirs' property³.
- Woodland owners generally tend to be older, and this is especially true in Appalachia, where
 the general population also skews older.⁴ Three quarters of the primary woodland owners
 the project area are over 55 years old, and about a tenth (9%) are 75 years or older.
 Secondary owners tend to be a little younger, with almost half (47%) falling in the 45-54 age
 group.
 - The landowner's age does have an impact on their ability to manage their land, although the relationship is not universal or straightforward. On the positive side, older, retired landowners have more time and resources to invest in woodland management. However, some research also suggests⁵ that elderly landowners are reluctant (or perhaps unable) to make significant management decisions or to invest in land improvement.
 - Older landowners also tend to be more concerned about legacy, both from the standpoint of leaving their land in good shape, and being able to pass it on to their heirs. This was topmost on the mind of many of the landowners with whom we spoke.
- About half of the primary woodland owners in this area have some post-secondary education, but it falls short of a Bachelor's degree. On either end of this cohort, about a

³ Heirs' property is land owned "in common" (known as tenants in common) by all of the heirs, regardless of whether they live on the land; pay the taxes or have never set foot on the land. In the south, heirs' property is mostly rural land owned by African Americans who either purchased or were deeded land after the Civil War.

⁴ According to the Population Research Bureau, the median age in Central Appalachia is 40.4 compared with 37.2 for the US population. http://www.prb.org/pdf12/appalachia-census-chartbook-2011.pdf.

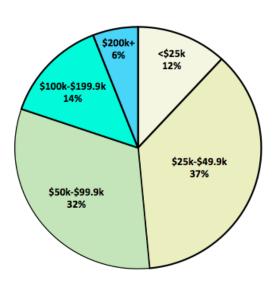
⁵ Joshi, S. and Arano, K. G. (2009). Determinants of private forest management decisions: A study on West Virginia landowners, *Forest Policy and Economics*, *11*, 118-125.

quarter (22%) have no more than a high school education, and a similar number (27%) have a Bachelor's degree or higher educational credential. Secondary owners report higher educational levels, with almost half (47%) having a Bachelor's degree or higher.

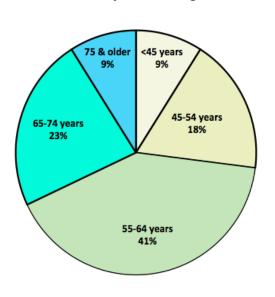
 About two-thirds (69%) of the woodland owners in this region report incomes greater than \$25K but less than \$100K. A fifth (20%) have a household income greater than \$100K and the remainder (12%) earn less than \$25K a year.

Figure 1: Demographic information for Woodland Owners in the focal area. NWOS data 2011- 2013.

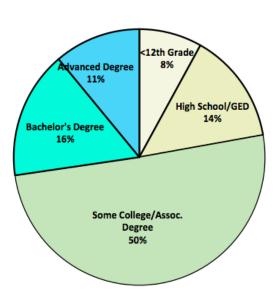
Annual Household Income



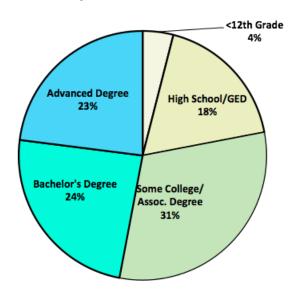
Primary owner's age



Primary owner's educational level



Secondary owner's educational level



Landowners with Larger Lots (50+ acres)

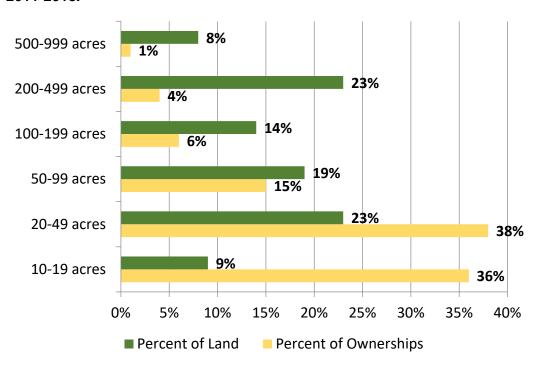
The demographic distribution for owners with 50+ acre lots is slightly different than the general landowner population in this region. The primary ownership of these lots is even more skewed toward white men (85% of primary owners are men and more than 99% say they are non-Hispanic White). These primary owners are even older than the general population of landowners, with a fifth reported being 75+ years. As might be expected, owners of larger lots have slightly higher household incomes, with almost a third saying their annual income is above \$100K. But perhaps the most significant feature of owners with larger lots is that two in five report having an advanced degree.

Key Characteristics of Land Ownerships

Parcel Size

The figure below shows the proportion of ownerships and wooded land that is held in ownerships of different sizes.

Figure 2: Distribution of land and ownerships by parcel size in the focal area. NWOS 2011-2013.



As the figure shows, three quarters (74%) of the ownerships in the project area are less than 50 acres, but these parcels account for only a third of the wooded land in the region. Two-thirds of the total land is held by a quarter of the landowners who have 50+ acre holdings. Within this group, just five percent of the landowners, who hold 200+ acre parcels, account for almost a third of the total land.

The size of a wooded lot can influence the range of management practices that can be implemented on the land, their costs and benefits for the landowner, and the impact of these practices on landscape-level ecological or economic goals. One of the key decisions for any landowner outreach program is whether or not to focus on landowners that own larger acreages. One the one hand, the actions and decisions of these landowners have an oversized impact on a region's forest resources and certification programs may be more attractive to larger landowners; on the other hand, landowners with the largest acreages are often better-served by existing programs and professionals.

Homes

Three quarters of woodland owners in this region live within a mile of their woods⁶. When a landowner's woods are also their home, this affects their management decisions. Through our focus groups with landowners, we have learned that people who live on their wooded land are emotionally attached to their woods and to specific amenities that they enjoy on a daily basis. For example,

Owners with 50+ acres are less likely to report that they have a home within a mile of their land (33% vs 48% for all landowners in this area).

the mess, disturbance and aftermath of logging (diminished view, access, aesthetics or privacy) can be a deterrent to intensive logging or clear-cutting, even when those actions may be silviculturally or economically appropriate. As one forestry professional who attended the Morganton meeting noted: "You can't educate your way around that."

Farms

Close to a third (30%) of woodland owners of the landowners in the AWA focal area have a farm attached to their woods. A map of the land cover in the focal area shows that farm and pasture land is concentrated in Western Kentucky, central Virginia and Southeast North Carolina (see Figure 3, page 7). In general, Appalachia has an aging farmer population; in 2012, the average age of a principal farm operator in Appalachia was 59 years and almost half of farmers were over 60 years old.⁷ The forestry professionals that we spoke with confirmed that many of the farmers in the region are old-time locals.

In previous focus groups, we have found that farmers tend to see their farm and woods as an integrated landholding and sometimes make woodland management decisions based on how they might impact farming operations. In addition, the forestry professionals that we interviewed

⁶ While NWOS doesn't specifically ask this, it is reasonable to assume that most of these people actually have a house on their woodlot.

⁷ Appalachian Regional Commission (July 2015). Food System Trends in the Appalachian Region: 2007-2012.

mentioned that the demands of the farm operation often leave farmers with less time and resources to improve their woods, which are sometimes seen as the less productive parts of the landholding. That said, NWOS data suggest that many farmers do appreciate the recreational, environmental and quality of life benefits afforded by their woods.

Timber Quality and Access

In addition to parcel size, the terrain of the lot and quality of trees also determine the cost-effectiveness of forest management actions. Foresters in North Carolina reported, for example, that in mountainous areas with smaller acreages, managing woods for timber is simply not feasible. Those who manage their woods do so for wildlife, water quality or other amenities. For these landowners, woodland management is essentially a cost that is never recouped, except in enhanced amenities and enjoyment. Conversely, on more accessible lots that have higher quality timber, landowners can "invest" in stand or property improvement, knowing that the investment is likely to yield returns for them or their heirs.

Tenure and Cultural Connection

Tenure of land use and historical connection with the land also affect how landowners make management decisions. In conversations with natural resource professionals in the four states of the focal area, three different types of woodland owners were identified:

Locals, whose families have been there for generations. They tend to be the farmers, who primarily rely on traditional knowledge and connections, and generally harvest with loggers that they know. If they seek out the state forestry agencies, it is usually after they have had a bad logging experience.

Newbies/Incomers, who have bought their little piece of Appalachian paradise, many for retirement homes. Most of these landowners live here year-round. They are typically attracted to the amenity values of their woodlands and timber. They are wealthier and are interested in knowing what they have on their land and how to take care of it. However, most don't know about available forestry resources and services.

Absentee/Second Home Owners, who fall into two categories: (1) those who live elsewhere but have inherited family land, and (2) those who have purchased the land for a vacation or seasonal home. Many of these landowners have family ties to the land, even though they may currently live elsewhere. According to the NWOS, a quarter (26%) of landowners in this region say they live more than a mile from their woods, but it is hard to say how many of these are truly absentee landowners.

In general, state forestry professionals find it is easier to engage the newer "professional" owners in stewardship activities, particularly wildlife habitat improvement. It can be harder to work with farmers who have heavy workloads and, sometimes, less interest in working with government representatives.

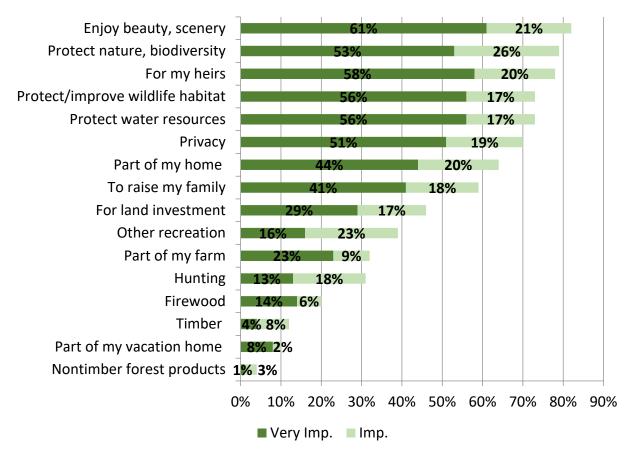
Absentee owners pose a different set of outreach challenges. They are harder to identify and reach; may be less familiar with their woods and attendant assets and threats; and are often less connected with local forestry resources.

What's important to Woodland Owners

Enjoyment of Nature

Figure 4 below shows how landowners in the project area rated the importance of different reasons for owning their woods. The graph shows the proportion of landowners that said each of these was a very important (dark green) or important (light green) reason for owning their woods.

Figure 4: The proportion of woodland owners that rated these reasons for owning woodland as very important or important. (NWOS, 2011-2013)



The vast majority of people who own woodland do so because they love the woodland environment and the lifestyle (or vacation lifestyle) that it affords them. Four in five landowners (82%) said that enjoying natural beauty and scenery was an important reason for them owning woods, with almost two thirds (61%) marking that reason as very important. Privacy was rated

as an important reason for owning woods by 70% of the landowners in this area, with 50% saying it is very important to them. Hunting and other outdoor recreational activities were also marked as important by about a third of landowners.

Woodland stewardship

Four in five landowners said that protecting nature and biodiversity is an important reason that they own woodland and 60% said that this aspect of owning woods is very important to them. In addition, almost three-quarters said that protecting wildlife habitat and water resources is an important reason for them. In another part of the survey, 88% of these landowners said that they want their wooded land to stay wooded.

While it is difficult to say how well this stewardship ethic is expressed in good management practices, some qualitative research conducted in Appalachian Ohio has documented the (often unacknowledged) role of rural smallholders in forest restoration and forest health promotion.⁸ The article reports that lower-income rural landowners with historic ties to the land have supported the return of the forest cover through passive forestation, active afforestation, a variety of forest improvement practices, and by organizing to protect the land.

Through conversations with landowners in the focal region, we learned that good stewardship is important to them, and often stewardship and legacy motivations are intertwined. Landowners want to take good care of the land and leave it in better shape for their children and grandchildren.

Family Legacy

About four-fifths of landowners (78%) said that passing land to their children or heirs is an important reason that they own wooded land. Close to 60% also said that it is important for them to raise their family among trees and woods.

Family legacy is particularly important in Appalachia where many people have deep roots. Virtually all the landowners in this area (93%) had either inherited or purchased at least some part of their woodland holding from family members. (Several of these people had also purchased additional parcels of land from other individuals or businesses.) Nearly three quarters said that keeping the land intact for future generations is a major concern for them. This was topmost on the minds of many of the landowners we spoke to at the AWA events.

Legacy and Land Transitions

The NWOS finding that woodland owners are very concerned about leaving a land legacy for their heirs is borne out in qualitative studies and anecdotal data collected around the country. This factor has particular resonance in Appalachia where the landowner population is even

⁸ Law, J. & McSweeney, K. (2013) Looking under the canopy: Rural smallholders and forest recovery in Appalachian Ohio. *Geoforum, 44,* 182-192.

older than elsewhere and where lack of employment opportunities is causing younger people to leave the area.⁹ At the time the NWOS data were collected (2011-2013), about 15 percent said they are likely or extremely likely to sell or give away their wooded land in the next five years.

Building a family legacy is a powerful reason for people to do right by the land and keep it healthy for future generations to enjoy. When this motive is thwarted, financial considerations become even more important. As noted earlier, 88 percent of the landowners in these counties said that they want their land to stay wooded. But a fifth (21%) also agreed or strongly agreed that they would sell their land if the price is right, and another 30 percent were undecided on that count. These figures highlight the forests' vulnerability to development pressures and the importance of offering better options to woodland owners.

Landowners gave many reasons for selling or giving away their land. However, almost three quarters of landowners with larger acreages (50+ acres) who were planning to sell or give away their land said that this land transfer is part of their investment strategy.

Income/Financial Stability

Not many landowners rate utilitarian benefits (such as timber, firewood, and non-timber forest products) as important reasons for owning woods (see Figure 4). Even land investment is rated as important or very important by less than half of woodland owners in this region (46%). All in all, most family landowners see woodland ownership as an asset that affords them (and their heirs) a better quality of life; not as a working asset that can generate steady income. Only about a tenth (12%) of all landowners, and a fifth (21%) of owners with 50+ wooded acres, said that they rely on their woods for some part of their annual income.¹⁰

However, these data tell only part of the story. While it is true that many woodland owners do not (or cannot) generate steady income from their woods, most landowners are very interested in ways to reduce costs of woodland ownership and/or generate sufficient revenues to support woodland management and improvement. More than four-fifths of landowners said that property taxes are a major concern with regard to their woods. In line with this finding, forestry professionals in the region reported that events that feature tax breaks or programs that offer funds (e.g. cost share) to help landowners improve their woods are popular with landowners. Through focus groups in different parts of the country, we have also learned that many landowners are interested in minimizing inheritance and operational taxes and/ or putting their land in easements simply to reduce the financial burden on their heirs so that the land stays in the family.

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⁹ Pollard, K. & Jacobsen, L. A. (2017). *The Appalachian Region: A Data Overview from the 2011-2015 American Community Survey.* Available at: https://www.arc.gov/research.

¹⁰ In no case was this greater than one-fifth of their income.

Types of Landowners

The Sustaining Family Forests Initiative has identified four types of landowners based on the relative importance of financial and non-financial (amenity) reasons for owning woods. These are described below along with their relative role in the project focal region.

Woodland Retreat Owners

Woodland Retreat Owners are amenity-focused owners, who value their woods primarily for aesthetics, privacy, and recreation. Oftentimes, they have lived part of their lives in more urban areas and are making a conscious return to a lifestyle that is closer to nature. Half of the woodland owners in the focal region (50%) fall into this category.

Woodland Retreat Owners tend to have a strong conservation ethic and are inclined towards minimal intervention and non-invasive uses of woodland. Sometimes, their non-interventionist mindset can clash with the philosophy of active forest management. However, they are willing to invest in forest management activities, especially if they believe that these activities will contribute to their enjoyment of their woods, improve wildlife habitat or biodiversity, or generate money that can be used to improve the property.

Our conversations with regional forestry professionals suggest that such woodland owners are particularly prevalent in Eastern Kentucky and Western North Carolina, and in the northernmost parts of Virginia, i.e. areas that offer natural beauty and amenities while being accessible to urban areas. Although tax reduction programs are often what bring them into contact with forestry programs and professionals, many of them have an interest in improving wildlife habitat. In these areas, as property prices have appreciated, rural landowners/farmers have sold their land to these urban transplants. Oftentimes the land is harvested just before it is sold, so the new owners, who are concerned about sustainability, are receptive to messages and services related to reforestation, forest health restoration and wildlife habitat improvement.

Working the Land Owners

Working the Land owners are multiple use owners that value both the financial and amenity benefits of woodland equally. These owners also have a strong stewardship ethic, but they define good stewardship as judicious and sustainable use of land. Thus, they are interested in different ways of generating income from their woods, including timber and wood products, non-timber products, leases, biofuels, easements, etc. These landowners usually live on or close to their woods and deeply value the serenity, beauty and recreational opportunities their woods offer. They therefore try to balance ecological and economic priorities so they can keep their woods healthy while optimizing use and income.

Although they are hungry for information regarding woodland health and uses, they also tend to be skeptical and wary, particularly of outsiders and so-called "experts". They have more confidence in traditional knowledge and local providers; often, they choose to work with people they know through their personal networks.

About a fifth (20%) of landowners in the project counties fall into this category. Our experience with these landowners suggests that they are likely to be long-time area residents and/or people with historic ties to the land. Their families probably made their living off the land and they have seen the landscape change as different land uses (farming, livestock, logging, mining, tourism) became more lucrative and prevalent. Based on our observation and conversations, the majority of the landowners who attended the AWA events in North Carolina, Virginia and Tennessee fell into this category.¹¹

Supplemental Income Owners

This category includes landowners who primarily think of land as a financial investment. They are most concerned with enhancing the value of their land holdings, and most of their land decisions are made within that framework. While they are least likely to give weight to sentimental appeals to preserve or conserve woods, they are more likely than other groups to invest in good advice and sound management practices if convinced of their current or future financial benefit. About one in six (14%) woodland owners in the area fall in this category.

Uninvolved Owners

This category includes landowners who don't assign a high value to either financial or amenity benefits of woodland ownership. Not surprisingly, they tend to be disengaged from their woods and not easily engaged in conversations or activities pertaining to better woodland management. About a sixth (16%) of woodland owners in the project area fall into this category.

SFFI Types for Landowners with 50+ acres

The distribution of landowners who own 50+ acres is different than the general landowner population in the area. Just about a third of the 50+ acre owners (36%) are Woodland Retreat Owners, about a quarter each (28% and 23%) fall into the Working the Land and Supplemental Income categories. Uninvolved owners make up the remaining 16 percent.

¹¹ It is not surprising that Working the Land owners were overrepresented at AWA events. These landowners tend to be hungry for (free) information and are familiar with (and known to) government agencies and service providers. They are more likely than other groups to attend forestry-related informational events, particularly events related to timber markets and programs that offer assistance or financial incentives to landowners.

What landowners currently do on their land

Harvesting Trees

 Although nearly three-quarters (73%) of the landowners said that trees had been removed from their land during their tenure as a landowner, most of this was for firewood and logs/trees for personal use. A much smaller proportion (16%) said that they had cut logs for commercial purposes.¹²

16% have cut logs for sale at any time in their ownership.

- Only a small proportion of landowners in the region have used a professional forester to plan, mark, contract or oversee any of their harvests, and even fewer say they used a certified or master logger for the cut. Our conversations with local foresters confirmed that harvests are typically unplanned (from a silvicultural perspective) and motivated by events such as sale or purchase of land, conversion of land to other uses, or financial need.
 Sometimes people are just persuaded by the money offered by the logger who comes to their door and reports that the trees are ready for harvesting.
- Among landowners who had larger lots (50+ acres), almost 40 percent said they had cut logs for commercial purposes. Surprisingly, owners of larger lots were not substantially more likely to report that they used a forester to plan the cut.
- Our conversations with landowners and state and industry forestry professionals suggest that the quality of logging is highly variable across the region. While the region has logger training and certification programs which promote sustainable harvesting and adherence to BMPs, there are also many untrained operators. Poor quality or excessive logging is especially a problem in the more remote or mountainous regions where most operations are performed by small, independent loggers on sites that are difficult to access or harvest. Select cutting—often simple high-grading—is a relatively common practice. Although landowners want the best for their woods, most don't know the difference between a sustainable harvest and an unsustainable one. In fact, many of the landowners whom we spoke with thought that high-grading selective cuts and diameter limit cuts are good forestry practices.

Other Uses of Woodland

 A little over a quarter said they have harvested non-timber forest products, almost all for personal use. Most of these woodland owners had harvested edible berries and a few had harvested materials for landscaping or decoration.

¹² A similar pattern is seen when the question was asked for the last five years. About two in five landowners (41%) said they had removed trees during the last five years and 13% said they had done so for commercial purposes.

- About a quarter said they had used their land to graze livestock during the past five years, and about the same number said they planned to do so over the next five years.
- Less than a tenth of woodland owners said they had leased their woods for other uses, mainly hunting and livestock grazing. This proportion was somewhat higher for landowners who have 50+ acres.

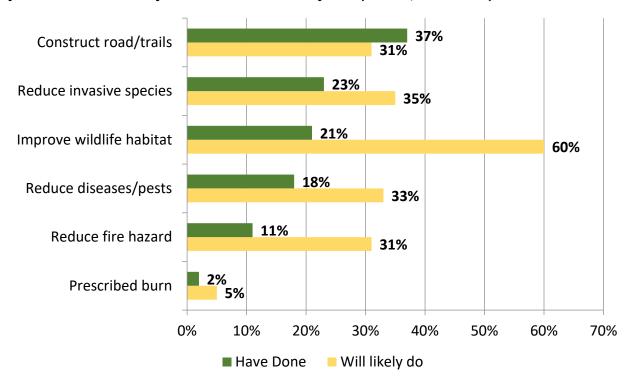
Recreation

- All but a quarter said that their land is used for recreation, often by them and/or their spouse (62%), but also by their children (52%), other family members (43%), friends (47%), neighbors (31%) and even the general public (4%). The most frequently reported recreational activities were hiking/walking (76%) and hunting (72%). Smaller proportions said they fish (19%), camp (26%), ride (20%) or use off-road vehicles (30%) on their land.
- Landowners also restrict access and activities on their land. A little over half (60%) said they
 have posted their land, especially to prohibit trespassing, hunting or use of motorized
 vehicles.

Woodland/Property Improvement

Figure 5 below shows the proportion of landowners that reported doing certain activities on their land over the past five years and those that plan those activities over the next five years.

Figure 5: The proportion of landowners who have done a particular activity in the last five years and/or will likely do so in the next five years (NWOS, 2011-2013)



As the figure shows, the most prevalent activity is the construction of roads and trails, which improves landowners' access to their woods, both for recreation or forest management. This proportion is even higher for people who own 50+ acres—47 percent of them said they were likely to build or maintain roads or trails on their property in the next five years.

Our conversations with local landowners confirm that access is a significant concern in many parts of this mountainous region. In fact, one landowner reported that he had agreed to harvest his trees only because the logger promised to lay down a good road that would give him access to hitherto unreachable parts of his land. More often, landowners reported that the high cost of harvesting in hard-to-reach areas made timber improvement and harvesting practices less cost-effective.

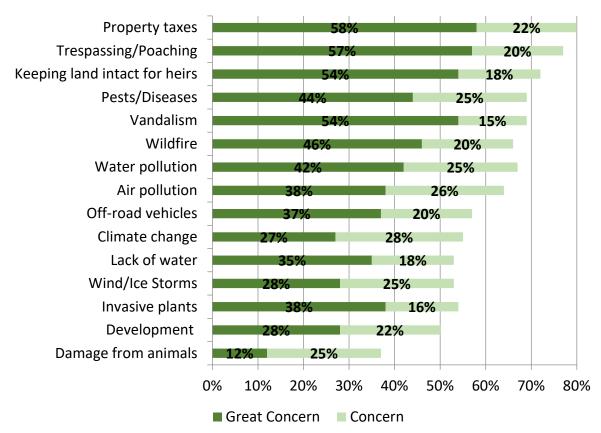
The contrast between landowners who have improved wildlife habitat and those that plan to do so is quite dramatic: Almost three times as many landowners (60%) said that wildlife habitat improvement is likely to occur on their land in the next five years than had reported that activity over the past five years. Somewhat fewer landowners with 50+ acres (49%) anticipated undertaking this activity in the next five years.

To a lesser extent, landowners also anticipate being more engaged in reducing fire hazard and fighting pests and invasive species. Owners of larger plots (50+) acres are somewhat more likely to say they intend to do these activities in the next five years. While these survey responses don't guarantee that more landowners will undertake the planned activities, they are indicative of what landowners think they should being doing more or better.

Concerns for the Woodland

The figure below shows the proportion of area landowners who are concerned about various issues that affect (or could affect) their woods.

Figure 6: The proportion of landowners in the focal area who rated these issues as being of great concern or concern for them (NWOS, 2011-13).



High property taxes were of concern to four-fifths of the surveyed landowners, which explains the popularity of tax abatement programs. However, these programs are not available to the smaller landowners, and not at all in Kentucky. As reported in the next section, virtually all landowners who are familiar with tax abatement programs in their state participate in them.

Apart from taxes, the most widespread landowner concerns are related to keeping and maintaining control on their property. More than half of landowners say that keeping the land intact for heirs is of great concern to them. Vandalism and trespassing are also of great concern to more than half of landowners.

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¹³ Three of the four states in the focal area have preferential property tax programs for forestland (NC, TN, VA). North Carolina and Virginia have a minimum requirement of 20 acres for enrollment, in Tennessee it's 15 acres. This suggests that the majority of landowners in the focal area are eligible for a tax abatement program, although program specific requirements dictate eligibility and vary by state.

Advice and Guidance

 Less than one in ten landowners reported that they have received advice or information about care, management or protection of their wooded land in the past five years. More than half of the landowners had received advice regarding timber production or land conservation; smaller proportions said the advice was about controlling insects or plant diseases and improving wildlife habitat. Less than a tenth of area landowners, and about a fifth of landowners with 50+ acres (21%), have received advice about their woods.

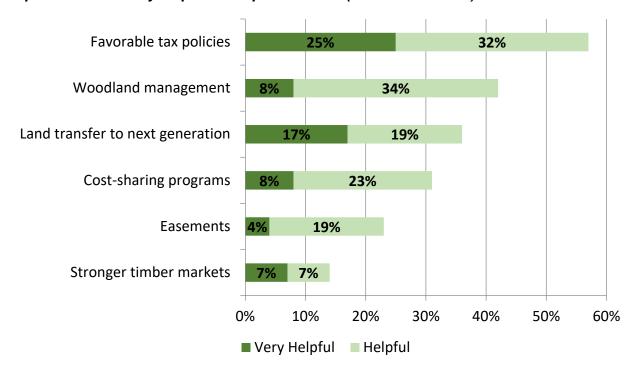
- Among landowners who owned 50+ acres, a greater proportion—21%—reported that they had received advice. The most common topics on which they received advice are timber production, wildlife and wildlife habitat, and land conservation, in that order.
- In most cases, landowners reported receiving advice from a government employee (state or F\federal) or a private consultant.
- The relatively low proportion of landowners who have received advice suggests that this
 region is underserved by forestry professionals. This is reflected in low awareness and
 participation in forestry-related programs.
 - Very few landowners (less than 10%) said they were at least somewhat familiar with cost-share programs and even fewer said they had participated in such a program.
 Only 7% of all landowners said they have a management plan.
 - A slightly larger proportion of landowners–14%–said they are familiar with tax programs and a similar proportion (13%) said their land is enrolled in such a program.
 - Similarly, about one-tenth of respondents said they are at least somewhat familiar with green certification, but almost no one said their land is certified.
 - About the same proportion (11%) said they are familiar with conservation easements and again almost no one said they have used this mechanism to protect some or all of their land.
- Reported awareness of and participation in government services and programs is higher among landowners who had 50+ acres. Among these owners of larger lots:
 - About a fifth (20%) said they are at least somewhat familiar with cost-share programs and half of those (10%) said they participate in such a program.
 - About a fifth of those with 50+ acres (22%) reported having a management plan.
 - Almost a third (30%) said they are at least somewhat familiar with tax programs and
 22% said they participate in such a program.
 - About 15% said they are familiar with green certification and 5 percent said their land is certified.
 - Less than one-tenth (7%) said they are familiar with conservation easements and 2% said they had an easement on their land.

Our conversations with the people who attended the AWA meetings suggest that landowners are looking for information and resources, but don't always know where to look, how to distinguish between the various service providers (state agencies, university extension, consultants, NGOs), or whom to trust. They are open to information, advice and services from forestry professionals, public and private conservation/preservation organizations, and industry representatives. However, they assess this information in the context of their own personal experience, traditional beliefs and practices, and in light of motives and biases imputed to the source of the information. They seek information and advice so they can assess their options and decide on a course of action.

Topics of Information

• The figure below shows the proportion of woodland owners who said advice on a particular topic would be helpful or very helpful for them. The figure illustrates that relatively few landowners find any particular topic to be very helpful for them. This confirms that landowners have different needs and goals, and require a comprehensive set of programs and materials to meet their needs. The figure also corroborates the finding that topics related to helping them keep their land and pass it on are of broad interest.

Figure 7: Proportion of focal area landowners who said that information on the listed topics would be very helpful or helpful for them (NWOS 2011-2013)



 Most of the landowners that we spoke with at the AWA meetings were broadly interested in three topics: (1) improving woodland health; (2) getting fair value for their timber and 3) options for leaving their land to the next generation. A few had come with specific questions,

- and almost all were happy to learn about the various services (from both public and private organizations) that are available to them.
- The opacity and variability of timber markets is a particularly vexing issue for landowners who are interested in managing their land for timber. Most landowners had heard stories about landowners being cheated by loggers or timber buyers or, conversely, landowners who found that their timber is worth much more than they imagined. These anecdotes create uncertainty and worry because landowners are never sure that they are getting a fair price for their timber and they don't know whom to trust.

Sources of Information

- The landowners that we interviewed at AWA events did not seem to be inordinately distrustful of government agencies, especially state and extension agents. This is probably to be expected since these landowners had chosen to attend an event co-sponsored by industry and government agencies. More importantly, however, awareness of government agencies and the services they offer was really low. In conversations with state and extension foresters we learned that these agencies often have a backlog of requested services and many competing priorities. Also, they are not always authorized to provide what landowners often request—a fair appraisal of the timber on their land.
- Landowner sentiment regarding the forest products industry was more mixed. Historically,
 the natural resources of this region were drained and destroyed by outsiders, typically large
 corporations headquartered elsewhere. That had led to a wariness against outsiders telling
 them what to do with their land. During these meetings, industry representatives were able
 to mitigate that wariness by emphasizing their long-time local presence and demonstrating
 that they are willing to invest in the region for the long run.
- Many landowners were distrustful of loggers and timber buyers. They have heard stories of bad harvests and underpayment for stumpage. Generally people who have worked with a private forester were strong proponents for using one, especially because they felt that the extra income generated through a consultant-facilitated harvest more than paid the consultant fees. These strong testimonials got the attention of other landowners, many of whom thought that they could not afford a private consultant.
- Most of all, these landowners want to be appreciated and respected. For them, knowing that
 their forester or logger is in their court seemed to be even more important than her/his
 expertise.

Green Certification

Very few of the landowners with whom we talked at the AWA events had heard about certification. When it was explained, most were mildly interested to learn more about it. This anecdotal finding aligns with NWOS data, which indicate that only about a tenth of landowners in the region are familiar with green certification.

NWOS data also indicate that almost none of landowners said their land is certified. Roughly speaking, this means that less than one in ten landowners who knew about certification chose to have their land certified. This suggests that simply raising awareness of certification is not the answer to the problem; rather, an effort has to be made to make certification programs more accessible and attractive to landowners.

Just about all the forestry professionals that we interviewed during this project acknowledged that, *for most landowners*, the cost of certification outweighs any tangible benefits (in terms of better access to markets or higher price of timber). Among available certification programs, Tree Farm is the best suited for smallholders who are managing their land for multiple objectives. Because Tree Farm is administered by volunteers and subsidized by the American Forest Foundation, Tree Farm certification is offered at little or no cost to most landowners. However, landowners do incur some costs in terms of documentation, property management and time.

The consensus seems to be that FSC certification is simply too expensive for individual landowners. Participating in a subsidized group certification program (like those run by forest product companies) is a viable option for larger parcels of land where landowners harvest relatively large volumes of timber with some regularity. This is borne out in the NWOS data, which show that participation rates in certification programs are much higher among landowners with 50+ acres, even though awareness levels are fairly similar across the landowner population. Joining a company's group certification could give these larger acreage landowners better and/or more certain access to a market.

For smaller landowners, the main benefits of joining a group certification may be access to professional advice and confidence that their woods are being harvested sustainably. Reduced uncertainty and confusion with regard to timber markets may also be a benefit if they are assured of being able to sell their timber at a fair price to the certificate holder. Landowners may find these benefits compelling provided there is little or no cost to their participation in the program.

From the landowner's perspective, green certification programs yield only mild benefits that come at a substantial cost of effort, time and money. A logical cost-benefit analysis currently does not warrant participation. The solution, of course, is to either grow the benefits of certification or reduce the costs or both. Both costs and benefits can be influenced through policy/program changes and through communication efforts, and preferably through a combination of the two approaches as illustrated in the table below.

Table 1: Reducing costs and enhancing benefits of certification through program changes and communication efforts

	Policy/Programs	rograms Communications	
Reduce Perceived Costs	 Easy access to free group certification pools Reduced costs and requirements for smallholder certification Certification implemented at system level (all landowners need to do is work with certified professionals) 	 Clear confusion and correct misperceptions, e.g. landowners may think that certification entails loss of control over their woods Provide clear, simple information about the program 	
Increase Perceived Benefits	 Preferential access to markets Preferential access to assistance/advice from forestry professionals Certainty of fair market value for timber Market premium for certified wood 	 Raised profile of green certification Greater respect for certified woodland and landowners Confidence that they are doing the right thing for their woods Emphasize the value of the tangible benefits shown in the left column 	

Appendix: List of Counties Included in the Central Appalachian Focal Area

North Carolina	Kentucky	Virginia	Tennessee
Avery	Bell	Bland	Anderson
Buncombe	Breathitt	Bristol	Campbell
Burke	Clay	Buchanan	Carter
Caldwell	Floyd	Dickensen	Claiborne
Catawba	Garrard	Grayson	Cocke
Cherokee	Harlan	Grayson	Grainger
Clay	Jackson	Lee	Greene
Cleveland	Knott	Lee	Hamblen
Gaston	Knox	Norton	Hancock
Graham	Laurel	Russell	Hawkins
Haywood	Lee	Scott	Jefferson
Henderson	Leslie	Smyth	Jefferson
Jackson	Letcher	Tazewell	Johnson
Lincoln	Lincoln	Washington	Knox
Macon	Madison	Wise	Morgan
Madison	Magoffin	Wythe	Roane
Mcdowell	McCreary		Scott
Mitchell	Owsley		Sevier
Polk	Perry		Sullivan
Rutherford	Pike		Unicoi
Swain	Pulaski		Union
Transylvania	Rockcastle		Washington
Watauga	Whitley		
Yancey			