With the significant decline in harvest activity on federal forest, nonfederal forests, especially private lands, will provide most of the human-induced forest landscape change in the Northwest. Types of landscape change include timber harvest, road building, reforestation, and conversion of forest land to other uses. In this talk, I cover recent and potential future trends in the management of non-federal lands, focusing on private lands of western Oregon and Washington. I also briefly discuss the role of state lands in landscape dynamics there.

Public Policy Framework

In the 1990s, we saw a divergence in the public policy framework for public land as compared to that for private lands. Policies for federal forests implemented a reserve-based strategy for achieving ecological goals, while regulations for private lands continued to recognize the landowner’s right to pursue economic and other goals in the context of the State’s interest in air, water, fish, and wildlife. Also, new policies for State forests attempted to improve conservation of threatened species, and generally protect biodiversity, while still providing significant timber harvest and income.

Land-use controls
Land-use controls have been especially important in Oregon where they slowed development of private forest land to a crawl. In 2004, however, the citizens of Oregon voted for Measure 37 which calls for landowners to be compensated if state or local regulations reduce the value of their property or for the requirement to be waived. Since State and local governments do not have money for compensation, landowners who have owned their forests since the 1970s (before the land-use regulations came into effect) can develop them as they see fit. Also, Measure 37 will have a chilling effect on additional land use regulations. In sum, we can expect to see more homes and housing developments scattered through the forests of Oregon.

Forest management regulations
Both Oregon and Washington have a history of attempting to improve forest practice regulations on private land such that the citizens continue to support forestry and federal regulation is preempted. Both states require reforestation after harvest and have a multitude of “best management practices” that must be followed during logging, along with limits on clearcut size. Also, they require some trees and down wood to be left after harvest. In the 1990s, both states began an effort to develop new regulations to improve riparian protection along streams, with Washington adopting especially extensive new rules. It appears that Measure 37 in Oregon will greatly limit the issuance of additional forest practice regulations there, leaving additional restrictions to protect endangered species or water quality largely to the federal government.

Private Forest Management

Private landowners in both states retain considerable freedom to manage their lands to achieve economic and other goals, especially in the uplands. They can, to a significant degree, choose the rotation age and harvest flow pattern that fits their needs. Restrictions on clearcut size still allow harvest of considerable areas over a few decades.

Traditionally, private lands have been placed in two ownership groups: 1) the forest industry (landowners with processing facilities) and 2) nonindustrial forest landowners (landowners without processing facilities). The forest industry in the region pioneered intensive plantation management to quickly produce commercial crops of Douglas-fir with rotation of ages approaching 50 years. Nonindustrial forest landowners tend to invest less in early stand control and engage in more partial cutting, thus producing a more diverse, slower-growing forest. Over the last decade, most harvest volume in the region has come from industry lands through clearcut harvest.

While some had speculated that we would see a major increase in private harvest to offset the decline in federal harvest, that increase generally did not happen, except for a temporary increase in harvest by nonindustrial
landowners associated with the price spike of the early 1990s. Western Oregon private harvests in aggregate, as an example, have remained remarkably stable over the last 15 years.

**Potential impact of globalization, stumpage prices, and ownership changes**

Globalization of wood product markets has become a major force in management of private forests in the Northwest. Increased softwood imports from Canada and elsewhere following contraction of federal harvest has put pressure on wood product prices. Also, the realization by many forest product firms that their forest investments might yield a high return in the Southern Hemisphere has created a new performance measure for industrial forests here.

Traditionally, forest managers have seen, and expected, a continuing increase in the real price of timber stumpage. Over the last decade, though, private forest managers have experienced loss of a log export market, competition from increase in wood product imports, decline in the plywood market, and loss of a price premium for large, second growth logs. Taking all factors together, projections suggest relatively flat prices for Pacific Northwest stumpage and relatively little incentive for growing large, old wood.

While the amount of private land controlled by firms with large landholdings that are primarily in the timber business has remained relatively stable, we have seen two potentially significant developments in the ownership of these lands: 1) the rise of timber investment firms, without processing facilities, who have purchased lands spun off by the forestry industry and 2) a consolidation of assets within the remaining forest industry. Both of these trends suggest increasing scrutiny of returns from forest investments.

Some implications of these influences for private forest management:

- **Types of disturbance**—Most activity, and especially most regeneration harvest, will occur on the lands of the forest industry through clearcutting. With their emphasis on intensively managed plantations, these actions will produce early seral stages somewhat different from those associated with disturbances of the past. More partial cutting and small patch cutting can be expected on nonindustrial lands; young stand diversity will be limited there by state forest practice reforestation requirements.

- **Rotation age**—most influences named above point to rotation ages considerably less than the recent past, perhaps as short as 35-40 years, on the lands of firms primarily in the timber business. With genetic improvement and intensive management, though, these trees will be larger at 35 years than current stands at that age. On family forests, we would expect more variability in rotation age, but relatively little late-successional forest.

- **Future of the forest industry in western Oregon and western Washington**—Questions have recently arisen about the competitiveness, in the global economy, of the growth rates and cost structure of industrial forests in the Pacific Northwest. As firms increase their investments elsewhere, the long-term future of the industry has become increasingly uncertain. It seems clear, though, that rate of return on forest investments will be an important determinant of that future.

**State Forest Management**

State forests also play and important role in the forest landscape dynamics of western Oregon and western Washington. Both states have chosen management strategies intermediate between those of the federal agencies and those of large private landowners. With intensive management, innovative thinning regimes, and somewhat longer rotations, they attempt to achieve some benefits of late-successional forests while providing significant timber volumes over time.

**References**

Developing landscape simulation methodologies for assessing the sustainability of forest resources in western Oregon. Phase I Report to the Department of Forestry. Department of Forest Resources, Oregon State University, Corvallis, Oregon, USA.


**SYNTHESIS REPORT- Dynamic Ecosystems**

1 Forest Resources Department, Oregon State University - 207 Peavy Hall, Corvallis, OR