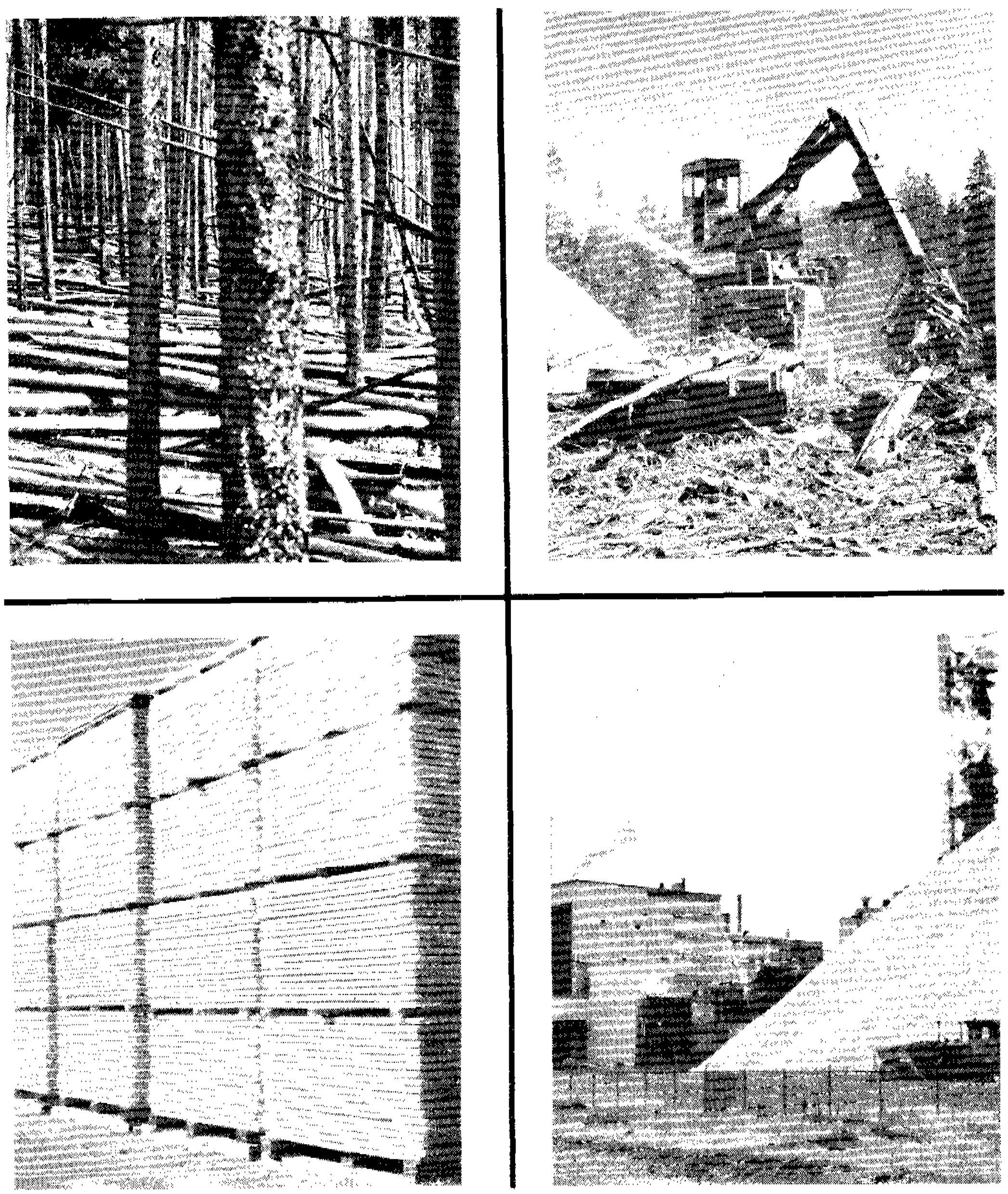
HARVESTING AND UTILIZATION OPPORTUNITIES FOR FOREST RESIDUES in the northern rocky mountains



Symposium Proceedings Nov. 28-30, 1979, Missoula, Mont.

USDA Forest Service General Technical Report INT-110
Intermountain Forest and Range Experiment Station
U.S. Department of Agriculture, Forest Service

USDA Forest Service
General Technical Report INT-110
March 1981

HARVESTING AND UTILIZATION OPPORTUNITIES FOR FOREST RESIDUES

in the northern rocky mountains

Symposium Proceedings
Nov. 28-30, 1979
Missoula, Mont.

Sponsored by:

Intermountain Forest and
Range Experiment Station,
Forest Service, USDA

Bureau of Business and
Economic Research,
University of Montana

Forest Products Research Society
Inland Empire Section

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
U.S. Department of Agriculture
Forest Service
Ogden, Utah 84401

RESIDUE UTILIZATION AND THE REGIONAL ECONOMY

Maxine C. Johnson

Director
Bureau of Business and Economic Research
University of Montana

ABSTRACT

The wood products industry is vitally important to the economy of western Montana. Forty to forty-five percent of the earnings in western Montana's basic or export industries comes from the wood products and paper industries. Whether or not forest industries in the Rocky Mountain region hold their own, decline, or expand in future years depends mostly upon the area's ability to compete in the national market, and upon the availability of raw materials. Increased residue use may prove to be Montana's only chance of maintaining the forest industry at or near its present level of activity.

KEYWORDS: residue utilization, timber availability, Montana

During this symposium we have discussed a topic of great importance to the forest industries and to the Rocky Mountain states: better utilization of raw material resources through the harvesting and use of forest residues. Residues are important to the industry because it needs the raw materials and important to the region because it needs the jobs and income the industry provides. In this paper, I will discuss the significant role of the forest products industry in western Montana, its prospects for the future, and the importance of these discussions to that future. My hope is that these comments will provide an economic perspective for the papers presented previously.

Perhaps no part of the Rocky Mountain region is more dependent upon the forest industries than western Montana. The private forest products sector alone has provided from 40 to 45 percent of the economic base of this area in recent years. By that I mean that 40 to 45 percent of the earnings in western Montana's basic or export industries comes from the wood products and paper industries. Earnings include both wages and salaries and proprietors' income. If the salaries of federal and state employees in forest industry-related jobs were added to industry earnings, the combined figures would approach or exceed 50 percent of total earnings in the area's basic industries.

Those of you who have not been in western Montana or Missoula recently will have noticed some changes. The growth that has occurred here in the past few years -- the substantial number of new employment opportunities which has been created -- is largely attributable to the forest industries. Their growth has made possible much of the expansion in retail trade, services, and other consumer-oriented businesses. We needed those jobs, as large numbers of young people entered the labor force and as more women sought employment.

Yet industry spokesmen and economists interested in the forest products industry have for some time been concerned about its long-run prospects in western Montana. There still is a real question as to whether the industry can maintain its relative contribution to the area economy during the next twenty years.

The events of the past decade in western Montana will help put the present situation in perspective. They are not so different, I suspect, from what has happened in other parts of the Rocky Mountain area. Certainly the early 1970s were not an auspicious time for the industry. After a rapid expansion in the sixties, it was clear that times were changing. There was no longer any doubt that the supply of federal timber available to the industry would decline. Despite a booming U.S. housing market, lumber and plywood production in this area just held its own between 1970 and 1973. Total industry employment and earnings showed little change. Then in late 1974 and 1975, the national recession hit the forest industry. Employment and earnings fell off sharply. The year 1975 was a dismal one for the industry and for western Montana.

And then a funny thing happened, just when some people assumed the industry was on its way to a permanent plateau or a downhill slide: its recovery from the recession turned into a period of rapid expansion. Total 1978 earnings of workers in the forest industries were up about 44 percent from 1975, after adjustment for inflation, while employment was growing by 32 percent. As a result of the rapid post-recession growth, forest industry employment in 1978 exceeded 1969 levels for the first time in this decade by about 1,800 workers, and that's a substantial number in this part of the world.

Raw materials for the expansion have been provided by a large increase in the timber harvest from private lands, both industrial and nonindustrial, beginning about 1974. According to forest service estimates, the total cut on private lands increased by almost one-half -- 46 percent -- between 1973 and 1978. Going back again to 1969 for comparison puts the situation in perspective: the 1978 harvest from private lands is estimated to have been 73 percent higher than the 1969 harvest, while the cut from federal, state, and Indian lands was down 42 percent. Without the increase in private harvest, total timber cut in Montana in 1978 would have been 30 percent below 1969, and western Montana would have been quite a different place from what it is today. Traffic congestion in Missoula would have been less of a problem, but the lines at the unemployment office would have been considerably longer.

While a substantial shift has been taking place in the timber harvest during the past decade, significant changes also have occurred in the structure of the industry. Employment estimates leave a lot to be desired, especially the industry breakdowns. But they do provide a tentative measure of changes in structure, and in the economic contribution of various segments of the industry.

Sawmills, plywood, and millwork plants, together with logging operations, continue to employ the great bulk of industry workers in Montana. Their proportion of the total, however, has declined from around 93 percent during the early seventies to from 86 to 89 percent in the past few years. Within this group, plywood has assumed greater importance. Employment in plywood plants has doubled since 1969, with more than 1,000 new workers. The numbers of logging and sawmill workers appears to be slightly smaller, and the number of sawmills has declined significantly.

The other segments of the industry -- mostly plants producing pulp and paper, particleboard, and fiberboard -- have added several hundred new jobs since 1969. These plants' share of total employment -- which recently has varied from 11 to 14 percent -- should increase a bit more when a Missoula paper mill expansion is completed next year. The growth of these industries is significant, of course, because they use mill or forest residues. With the pulp and paper mill expansion, we may see the first large scale use of logging residues in western Montana.

So as the 1970s end, despite all the problems of the past decade, the forest products industry in Montana is more diversified and is employing more people than it did ten years ago. But, what about coming decades?

We all know that the short run outlook for the industry is not good. We already are seeing short work weeks and layoffs in response to a falling U.S. housing market. But we are more concerned with the longer term prospects in our discussions today. Whether or not forest industries here in western Montana, and in the Rocky Mountain region, hold their own, or decline, or even expand, in future years, depends mostly upon the area's ability to compete in the national market, and upon the availability of raw materials.

Large numbers of young people from the high birth rate years of the fifties and sixties will reach the home buying age during the next decade. There is not much doubt that a strong national demand for new housing will exist during the 1980s, if construction funds are available. This means that the demand for lumber, plywood, and board products also should be strong; how strong depends upon the relative price of wood compared to other building products.

The demand for Rocky Mountain wood products may well hinge upon what happens in other parts of the country. Will the Rocky Mountain region be able to hold its share of the national market? We don't know. Certainly not if adequate timber resources are not available.

Will adequate raw materials be available to the industry in Montana? There is general agreement, I think, that the high level of harvest on private lands, which made possible the expansion during the late seventies, cannot be maintained during the eighties and beyond. Users of private timber will be gradually forced to look to public lands for a larger share of their raw materials. Given present legislation and national policy, apparent public opinion, and probable funding levels for public land management agencies, it seems to me unrealistic to expect any significant increase in public timber harvest in the 1980s.

Paul Polzin, an economist in our Bureau, has prepared some projections of the demand for softwood sawtimber from Montana forests to the year 2000 and beyond. One set of these projections assumes that prices for wood building products continue to rise faster than prices of competing building materials (a reasonable expectation) and that Montana holds its 1970 share of the national market. His estimates indicate that under these conditions we would need to harvest timber at about the same rate in both the 1980s and 1990s as we did in 1978. That probably will not happen. Before the year 2000 rolls around, our supply of timber may fall short. It may not be a severe shortfall, but it likely will be enough to cause some severe problems for individual mills.

To assume that Montana can hold its share of the national building material market may be unrealistic; certainly some economists think so. But from the standpoint of the economic welfare of western Montana, it is a goal worth shooting for.

The fact that it is quite possible that over the next twenty years there will not be enough timber to hold our share of the market gives greater urgency to the topics discussed in these papers. An area heavily dependent upon a single industry with an uncertain source of materials, an area with a growing labor force, and few prospects for expansion of its economic base through growth in other activities, has a right to be concerned about its future. So, of course, does the industry.

Certainly the industry should continue to press for as much public timber as good land management will permit. Realistically, however, increased use of forest residues may prove to be Montana's only chance of maintaining the forest industry at or near its present level of activity. Increasing residue use may be a long, slow process; it will require further structural changes within the industry. If the forest industry employs 10,000 or 12,000 people in Montana in 1995, it will be a different industry from the one we know today.

As a Montanan and an economist, I am pleased to have participated in this discussion of the prospects for utilizing forest residue in the Rocky Mountain region. I hope that decision makers in both the private and public sectors will continue to look at options for using these materials, and for restructuring the forest industry in a way that will permit it to continue in its important role as a source of employment and income.