

## Riding the Winds of Change in Maine's Forests

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All of us have spent the last day and a half discussing how Maine people and their forests can successfully ride the winds of change over the next few decades. Before attempting to reach any conclusions it will be helpful to look beyond our state and regional boundaries and see what the larger context is likely to be.

### Industrial Adjustment

In the future some very significant movements of forest industries within the United States are likely, indeed they have already begun to adjust to some obvious facts. First, the bulk of our nation's inventory of standing softwood sawtimber is in the old growth out west. However, a good deal of this land is being diverted into other uses and the rest is being harvested, so that the end of our old growth resource is finally in sight. Second, only about 25 percent of our nation's timber growing land is in the west. The remaining three-quarters is in the east, about evenly divided between north and south. Thus, as we come to depend increasingly on growing our wood rather than gathering wild stock, it's clear that the east must supply much more of our needs than in the past.

Third, about 75 percent of our western forests are on public land and subject to fierce policy squabbles to accommodate many other uses than wood production. Industrial people have found it hard to cope with the political and planning processes that have developed to handle these complex resource allocation decisions. Fourth, in the east the situation

is reversed and only about a quarter of the timberland is public, so private people and companies own the lion's share. Ownership carries with it substantial rights to manage land that business people have found more congenial to handle than public planning.

So, long-term necessity and short-term convenience suggest that we will see a gradual shift in the center of forest industry activity from west to east. Because wood using industries are already heavily developed in the south and because southern pines can substitute for most western forest products and with proper attention can be made to grow on a great deal of land in the south, this is where the first build-up is taking place, symbolized by Georgia-Pacific's shift of its corporate headquarters back from the west to the south.

If this scenario continues it seems likely that for a while corporate managers may turn to expansion in the southeast in preference to Maine. However, this can only be temporary because any reasonably perspicuous foresight will show that in the longer run the large industrial land holdings in Maine are an unusually attractive base for industrial growth not readily available elsewhere so close to east coast and European markets.

#### Utilization Changes

Another change that these "prevailing westerly winds" suggest we must cope with, is the fact that much of the east, especially the northern part, contains the richest assemblage of temperate region hardwoods in the world. If we are to realize the full productive potential of our timberland it will be essential to find ways to utilize more effectively this vast hardwood resource. These trees represent much too large a reservoir of captured solar energy to allow them to go to waste as so often happens today.

Some propose converting selected areas to softwoods by more intensive management. And this will no doubt happen. However, experience suggests that the accompanying environmental impacts are likely to be considered deleterious. Also the sheer strength of the natural ecological forces that must be overcome in many areas will require such a large front-end investment load that these factors will combine with long term uncertainties to keep forest conversion relatively limited in scope.

Industrial conversion to find some means of adapting manufacturing processes to the hardwood raw materials so abundantly at hand is a far more likely prospect. Historically, this course has been very significant because an investment in utilization can be at work earning a return in a matter of months, while forest growth changes usually take several decades to mature. In addition, the tree species which are the natural growth of the land can often be produced with low intensities of management requiring minimal investments early in the rotation. Low cost production of this kind provides not only a competitive edge but also some of the flexibility needed to deal with uncertainty about future demands.

With its rich diversity of species growing naturally, Maine appears to be in a favorable position to take advantage of any innovations in utilization. Provided, of course, that opportunities are properly presented to investors in a climate congenial to venture capital.

#### Debtor Nation

In this respect I heard just last week of a major uncertainty about capital in the future when a Wellesley professor of economics said on television that, "If present trends continue the United States will become a debtor nation early next year". Foreigners have owed us more than we owed them since early in the life of the Republic, but apparently that

situation is about to be reversed by the influx of Europeans and Japanese with money, buying corporate stocks and bonds and a significant amount of our treasury notes.

The implications of this change are hard to judge because as we heard last night most other debtor nations are in the third world struggling to develop and their harsh and dictatorial experiences with international monetary agencies are not so likely to apply to the United States. However, in the future it is probable that our government and financial institutions will be increasingly sensitive to the problems of maintaining a needed flow of foreign capital, and preventing its withdrawal in a fit of panic or pique. In addition, striking a more favorable balance of trade by promoting exports and reducing the need for imports is likely to get closer attention.

In this situation, the possibilities of exporting more farm and forest products are likely to be attractive, and a raw material producing state like Maine may play a significant role. In this effort it will be desirable to export items that have been pushed as far along in the manufacturing process as possible, in order to keep at home a larger share of the value added by manufacture. As we heard this may not be easy but the potential for such activity is suggested by Massachusetts which employs almost one and one half times the number of people in forest industries and realizes 6 percent more value added by manufacture than does Maine. This, in spite of the fact that Massachusetts has less than a sixth of Maine's forest land, so most of its manufacturing gains are based on out-of-state raw materials which are then highly processed. In any future search for new wood using industries it will be desirable to attract those which produce a large value added per unit of raw material.

It appears that we can add to the "prevailing westerly winds" of change the problems of being a debtor nation which may generate some "on-shore breezes" from overseas. We can also throw in the usual eddies of wind that arise in response to the changing barometric pressures of our own economic growth and contraction, inflation and interest rates. At the moment, for every investment analyst and economist predicting a down turn there seems to be another forecasting the opposite. So our information base about future economic activity is just about as confusing as it usually is, and we will continue to base decisions on what informed people imagine the future will be like.

#### Maine Wood Supply

Maine's future supply of wood fits into this general picture of contradiction. In the short-run there is a glut of material because of the residual need to finish the salvage of budworm damage. But in the longer run this may produce a stringency in the supply of spruce and fir. One way to alleviate the problem is to manage existing stands more intensively to promote their early maturity. Making the investments needed will pose a sad dilemma for MBA's who think in terms of quarterly earnings, and, all too frequently, control corporate investment policies. However, there is hope, because those wise enough will know that investment should be guided by the expectation of future earnings and not by current returns. An experienced and sagacious business man might paraphrase Saint Paul's comment on faith by saying, "Expectation is the substance of things hoped for, the evidence of things unseen"---(Epistle to the Hebrews XI, 1).

### Driving Forces

In the past, expectations about forests and their use have responded in very large measure to events beyond local control, and this situation is likely to continue. The budworm attacks of the 1912-20 era greatly reduced the spruce-fir inventory. This act of nature combined with product demand levels which sank like a stone during the Great Depression, and cheaper production opportunities elsewhere in the country, to discourage managers from expanding Maine industries to fully utilize forest growth. Later, people slowly became aware that this situation had produced a huge surplus of wood. When in the 1970's the opportunities for change were perceived and reinforced by rising economic demand for forest products and the need to modernize or abandon some of the old mills, industrial expansion took place both in Maine and just across the border in Quebec. This came in time to salvage the trees killed by the next major budworm epidemic. Enforced salvage in turn created a surplus of wood which has kept current stumpage prices low while again setting up an age-class structure likely to produce a scarcity of wood a few decades down the line. In addition, the widespread use of aerial sprays to retard budworm damage has focused public attention on the environmental impacts that the use of such practices can have.

There are other spin-offs of salvage that are likely to have repercussion for some time. The effects that very large clear cuts can have on water quality, forest regeneration, soil erosion, wildlife and scenic attraction are creating popular concern. This is especially true now that budworm salvage has roaded so much of the hitherto remote north woods. Easier vehicle access has brought a great and probably irreversible change in hunting habits, while massive clear cuts have

noticeably reduced the deer herd and increased moose habitat. And the innovation of machines for biomass harvesting promises continued large clear cuts. While proposals to convert high graded, mixed-wood stands to softwood by clearcutting, planting and herbicide spraying raise the specter in the minds of many laymen of even greater environmental change. All told, the effects set entrain by the budworm, the economy and technology will be central preoccupations of Maine forest managers for a long time to come.

A good many of the efforts proposed to cope with the situation have received a lot of attention at this conference. Measures designed to cope with a future wood shortage include proposed thinnings and improvement cuttings to speed normal growth. This is in addition to planting. On the other side of the coin we hear of changes being planned or made in manufacturing processes so that a broader spectrum of trees can be used. In addition, some of the less used but abundant species or tree qualities are the basis for building new businesses like wafer board and biomass for energy. Both of these ventures are having momentary difficulties breaking into sluggish markets but have great promise in the longer run.

Process and product innovators find that resources are allocated grudgingly when times are tough, but come more readily when the economy is bustling. However, Maine's forest landownership pattern with 47 percent owned by wood using industries which have access to national and international capital and end product markets, holds the promise of long run industrial development. Having ownership control of almost half the forest growth in the state provides major economic advantages which extend well beyond an assured supply of raw material. However, these gains are purchased at the cost of being highly visible rulers of an enormous

fiefdom. As such, industrial owners can expect to be fair political game for anyone dissatisfied with the way they handle the forested environment. If they hope to be let alone, the owners of large tracts will have to pay close attention to their impact on water, wildlife and amenity and do what is necessary to create a clear perception of themselves as responsible stewards of the land. Without this favorable image of good husbandry, private large ownership rights are likely to be radically circumscribed by public action in the years ahead.

### Proposals for Action

Each of the speakers and the task force reporters has proposed steps that have been or can be taken, which if successful will improve the opportunities open for forest land use in the future. These proposals fall under four general headings: the forest and its uses, industry, labor and government.

### Forests

Those interested in using woodland for products or for other social values seem united in wanting a forest that is healthy, productive, containing diverse species and age-classes, and is well protected from catastrophic loss to insects, diseases, fire and storm. A look at the latest forest survey suggests that Maine forests are already well advanced toward these goals. Looked at state wide, there is a rich diversity of species and the age-classes are better balanced than hitherto. Locally, however, the age-class structure of spruce-fir leaves a good deal to be desired and there is general agreement that a period of shortage lies ahead. None-the-less, most of the forest stands are reasonably well stocked and the number of poor quality and defective trees overall is not



alarming, even though there is obviously much that could be achieved by thinnings and improvement cuttings.

There is less unanimity about the management practices needed to produce a more well balanced, healthy and productive forest. The most divergent views probably center on the role of large scale clearcutting, the amount of planting that is desirable and the tolerable scale of insecticide and herbicide spraying. In this regard public concern is focused on the impacts that these practices will have on water quality, fish and wildlife habitats and on forest recreationists.

Proposals for action include enough research to clarify all the consequences of forest practices, responsible use of acceptable measures by private landowners and finally, governmental rules about the use of materials and practices that are clear, consistent and fair to all parties. There is obviously a large role for better information so that public and private decisions are well informed of the measures of effort required, the figures of merit realized and the environmental changes associated with each proposed forest practice.

### Industry

It is agreed that forest based industries make a significant contribution to employment and income in Maine. The pulp and paper segment dominates in wood manufacturing and is likely to continue to do so because Maine now leads the nation in paper making capacity.

Sawmill capacity was enlarged during the 1970's but will continue to suffer all the variation in demand associated with the building cycle. In addition, as long as the dollar remains strong there will be brisk competition from Canadian lumber imports, much of it sawn from exported Maine logs. Whether any governmental steps can be taken to relieve this

pressure remains to be seen. Similarly, market pressures affect the fledgling wafer board industry and electricity generated from biomass. The latter cannot expand much until the demand for electricity increases a good deal.

Should all these industries increase their activities at once there might be enough competition for wood of all kinds to raise stumpage prices. The prospect of this would, in turn, make it desirable to use more intensive timber management, reinforcing the desire to fill the anticipated budworm slump. This move might be helped if the state provided some investment incentive through the tax system.

It appears that industrial land managers have adjusted to the idea of land use regulation, although there are a number of changes that would make the LURC system run more smoothly. On the whole, the major plea one hears is that government should clearly state its tax system, land use regulations, environmental, transportation and labor plans and then stick to them so that changes come slowly and infrequently. Industrial people think that they can live with almost any reasonable action in these areas, provided they can count on the rules staying in place for some period of time.

It has been proposed that the Governor appoint an industrial advisory board to promote better understanding between the wood using industry and state agencies. This idea has a good deal of merit, but I suggest that experience with the Massachusetts State Forestry Committee and the Working Groups used by the White Mountain National Forest be considered. In both instances the committee membership is carefully chosen to include representatives of all forest users. Then the group is charged with bargaining out among themselves forest plans and policies they are willing

to live with. The system is not foolproof and requires a lot of patience, but when it works it is much more productive than searching for a solution via an adversarial approach in the media or the legislature.

### Labor

The existence of a skilled and willing labor force has been a major asset to Maine. Whether or not this continues to be the case in the future depends not only on the jobs offered by industry, but also on the policies followed by government to educate its citizen labor force. In fact, this is a fruitful field for cooperation between state and local governments and private industry. The education task force has a very complete set of proposals which, if implemented, should go a long way toward making work in forest industries a dignified, rewarding and attractive way to live in Maine. In the long run nothing less will serve.

Maine has been ahead of the other New England states in providing a program of vocational education for the next generation of wood cutters and contractors. The current set-back in numbers of students may only be temporary. But it may indicate the need to first do those things that will increase the self esteem of woods workers and this task will require rare insight, some of which was hinted at by speakers yesterday.

I suspect one way to start is by helping up-grade the skills of the present wood cutters and contractors to make their work safer, more effective and rewarding. Europeans regularly send their workers to school to learn about new equipment, safe and efficient work habits and better business practices. If present workers could thereby become more skillful and successful this could start a boot strap operation that might attract new bright students to become full time workers.

Government

It is difficult to talk about any of the task force reports without touching on some facet of government. Suggestions have ranged over the whole field from forest land management, information and education to creating a favorable business climate and maintaining a healthy outdoor environment for all citizens.

This raises the question of just what the proper role of government is. I propose that in a society such as ours where technological and social innovations are so commonplace that change and adjustment to change become major aspects of life, government should buffer its citizens from too much instability. Thus state officials in designing their actions and policies should try to alleviate or reduce the tensions of social evolution. Programs should introduce elements of steadfast purpose, firmness, steadiness and consistency into the fabric of our society.

This is in sharp contradistinction to the idea that business people should be alert to ride the waves of change, taking nimble advantage of emerging opportunities that were undreamed of yesterday. The strength of a business organization should be its flexibility to set new directions and its power to stimulate people to seek imaginative new solutions. If business policies are innovative, brisk and bustling then the interplay with consistent government will produce a society that is forward looking and yet moves with all deliberate speed.

I suggest that we keep these contrasting roles clearly in mind when judging the proposals placed before this conference. One thing is abundantly clear that the future is fraught with uncertainty because, "thou knowest not what a day may bring" (Proverbs XXVII, 1) but also, "Where

there is no vision, the people perish" (Proverbs XXIX, 18). The role of this conference is to provide a shared information base which builds a vision of the future which all can pursue with confidence and joy.