ISF State of Sustainability Report

(Report Summary)

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Executive Summary

Introduction

For more than 10 years the Institute for Sustainable Forestry (ISF) has worked towards economically viable means to promote sustainable forest management in a market context. ISF focused primarily on two programs: 3rd party certification of sustainable forest management and sustainable development of the California hardwood resource. In the light of recent changes in local timber markets we are reevaluating the potential of these two programs and the scope of our vision.

The following review of recent trends in the timber industry, compiled from numerous sources, provides background for effective strategic planning to promote sustainable resource management that contributes to the long-term ecological, economic and social well being of forest based communities in the Pacific Northwest.

Global Markets / US exports

Producers from the global north and the global south compete for market share in lucrative northern, primarily US, markets. The US softwood market is the largest world market for softwood lumber deriving over 35% of its softwood consumption from imported products. Although once a major importer of US softwood products the European Union currently produces most of the softwood it consumes. The Asian financial crisis, which began in 1997, substantially reduced demand for US exports to Asia. Further declines in Asian consumption are expected.

China is the exception. Much attention is currently focused on potential markets based on China's 8% per year economic growth and government housing construction program. China's harvesting ban substantially increased its demand for softwood sawlogs. Most of that demand is met by Russian sawlogs. Russian softwood production capacity is rising. Russian softwood forests represent 22% of global softwood forest inventory. This area is expected to have a significant impact on global forest products supply and demand in coming years

In 2002 the forest products industry suffered from slumping demand and oversupply cutting profits by 50% throughout the industry placing particular pressure on high cost production regions such as the Pacific Northwest.

In 2003 currency prices (the relative value of the US dollar against foreign currencies such as the Canadian dollar and the Euro) had significant impacts on the relative competitiveness of producers throughout the world. Although the dollar dropped in value over the past year, in the past two months the dollar gained ground.

US Summary

US demand for lumber is *the* dominant factor in global softwood supply and demand curves. Increases and decreases in the demand for US housing significantly impact global lumber prices and investment in global production capacity. New housing starts

are expected to remain strong in the near future in spite of anticipated increases in mortgage and interest rates. Recent increases in the employment rate associated with current US economic growth are expected to maintain demand for new homes in the short to mid term.

US consumption is expected to increase 40% by the year 2050. By 2008 the US will import over 40% of its consumption from foreign producers. A rising share (15% in 2050) of increased consumption will be met by imported softwood products.
In spite of generally rising sawlog prices (0.6% per year) markets for small diameter western sawlogs are projected to remain weak.

Although Canada continues to provide the majority of softwood lumber imported into the US, and the volume of Canadian imports continues to increase, Canada's share of total imports has dropped from 97% to 91% by volume. US Foreign Agricultural Service figures show significant increases in imports coming from Canada, Germany, Brazil, Chile, Sweden, Austria and New Zealand. Low cost production centers such as Brazil and Chile played an increasing role in US softwood lumber imports between 1998 and 2002. Analysts expect Russian softwood forests coupled with increasing low cost production capacity in both Russia and China to play a strong role in softwood lumber markets in the near future. US softwood exports fell from 11.01% of US production in 1990 to 1.25% of production in 2003.

Pacific Northwest Summary

In the early 1990's public pressure to protect national forests in the Pacific Northwest (PNW) resulted in an 80% administrative curtailment of federal forest timber sales. Sawlog supplies to private industry were significantly reduced. These reductions in supply have had a significant impact on US demand for imported softwood and on the distribution of productive capacity among timber producing regions in the US.

Since the reduction in timber harvest on federal land, harvest levels on private land have been relatively stable. However PNW mill closures and capacity losses continue. Between 1994 and 2000 Washington and Oregon experienced a 10% drop wood products manufacturing employment. Although other regions posted much larger gains in production capacity, **between 1996 and 2002 the US Pacific Northwest posted a net capacity gain of 0.5%. During the same period 70 mills closed in Montana, Idaho, Washington, Oregon and California.** An additional 28 mills closed in British Columbia—the largest softwood producing province in Canada.

US building starts data show two downturns in the US housing market since 1978 with low points in 1981 and 1991. Recent curtailments, unlike curtailments in '81 and '91, happened during a relatively minor reduction in US housing demand.

According to Henry Spelter from the USDA Forest Products Lab in Madison WI, the Softwood Lumber Agreement (SLA), in effect between 1996 and 2001, helped to protect US industry during the strong housing markets of the mid to late nineties creating a profitable environment for US companies. As a result many North American companies

reinvested in additional capacity and efficiency during those years in spite of reduced access to timber supply coming from Federal Forests. During this same period producers in low-cost regions also intensified production gaining increased market share in both global and US markets.

PricewaterhouseCoopers' 2003 Global Forest and Paper Industry survey showed overproduction and oversupply in global markets that resulted in low market prices in 2001 and 2002. These factors were exacerbated in regional markets by the Canadian response to US tariffs on Canadian lumber applied at the end of the SLA. The Canadian increases in both productivity and production further deflated market prices.

The Softwood Lumber Agreement and the subsequent US tariffs led to decreased US competitiveness in world markets. A positive price differential between US and world softwood lumber markets provided an incentive for increases in production capacity which led to oversupply in 2001 and 2002. As a result products from non-targeted countries or regions gained market share. The SLA also led directly to a substantial increase in US imports of Canadian softwood *sawlogs* from 25 million board feet in 1998 to 250 million board feet in 2000.

Although the Softwood Lumber Dispute is not yet resolved Canadian sawlog export figures and a recent article about British Columbia's discussion of a separate pact with the US suggest that Canadian forest policies are in transition. Some observers feel that the eventual outcome of the dispute will be Canadian forest policy changes that establish a market based pricing system for logs and lumber in Canada and the reduction or elimination of tariffs at the US border.

California Summary

California, even more than the US as a whole, is a net importer of softwood lumber. California consumes nearly 15 percent of all of the wood and paper used in the United States, the most of any state. California consumes approximately 9 billion board feet of softwood annually. With current harvest levels in the 2 billion board foot range California consumes 78% more softwood that it produces. The state imports about 75% of its wood and paper products from Oregon, the U.S. Southeast, Canada and Europe.

Federal timber harvest restrictions have had a significant impact on the California timber harvest levels. Private harvest levels have also been declining (though not as precipitously as public harvest in the early 1990's) in recent years in spite of strong prices in the late 1990's and increasing growing stock on non-industrial ownerships.

As a result of declining timber supply, global competition, and increasing production efficiencies the number of sawmills declined from nearly 100 in 1988 to less than 40 in 2002. Industry curtailments are similar to other areas in the PNW, however capacity in California is declining slightly rather than increasing slightly as in the PNW as a whole. Between 1988 and 1994 employment in the wood products industry dropped 30% in California. However, between 1994 and 2000 employment in the wood products industry increased 24%. Most of these gains appear to be in remanufacturing employment

occurring in southern California. Almost 70% of wood products related employment is now in the five counties of Los Angeles indicating that significant value is being added to forest products within the state, although not necessarily to products of California origin. The industry contributes about 1% of total California's personal income, value added and employment.

The California Department of Forestry's Fire and Resource Assessment Program's (FRAP) *The Changing California: Forest and Range 2003 Assessment* points out:

> The social setting of California's forest and rangeland has changed radically since the late 1980s. The State's growing population consumes increasing amounts of forest and rangeland products. At the same time, Californians increasingly demonstrate values and concerns that are redirecting the use of forest and rangeland resources towards more environmental considerations.
>
> While Californians possess extremely diverse viewpoints concerning appropriate methods of forest and rangeland use and management, **nearly all are supportive of conservation**.
>
> **A major issue for the future of California's forests and rangelands relates to public perceptions of the appropriate mix of private investments, regulation, public investments, and governance processes needed to achieve desired goals. Innovative strategies to address these concerns and communicate successful approaches to the public will be required from both public and private organizations…**
> [emphasis added]

FRAP's technical working paper on timber related revenue contributions to local government in California notes:

> Given the growth in California's economy and changes in the funding structure of local government, timber–related revenue has become an increasingly small percentage of total revenue sources for local governments. Statewide, these funds amount to less than 1% of all revenue sources.

North Coast Resource Area / Humboldt County Summary

Humboldt County is a net exporter of softwood lumber providing up to 30% of California's total timber production by value. Wood products manufacturing represented 4% of total (wage and salary) employment in the county —2,000 out of 50,000 jobs in March 2003.

As the previous sections show sawlog markets on the north coast are significantly impacted by forces beyond the control of the state of California or even the federal government. Global market dynamics and regional trade disputes, in particular the Softwood Lumber Dispute between the US and Canada, drive curtailments in the local and regional industry, availability of imported sawlogs in local markets and cycles in sawlog prices at surviving northcoast mills.

Both the 2003 FRAP report and the 2003 UC report (*Forestry, Forest Industry, and Forest Products Consumption in California*) base their estimates of standing timber

inventory and net growth across public and private ownerships on survey data collected by the Pacific Northwest Research Station in 1984 and 1994. (Updated 2004 data is not expected until 2005) Review of Karen Waddell's 1996 report on the North Coast Resource Area (Sonoma, Mendocino, Humboldt and Del Norte counties) show these figures on the status of standing inventories:

Aggregate net change in growing stock on all private land (growth – mortality – removal = net change) showed a net gain of 159 million cubic feet. Net change on industrial ownerships showed a net loss of 475 million cubic feet. Net change on other private (non-industrial) ownerships showed a net gain of 634 million cubic feet.

National Forests in the North Coast Resource Area comprised 16% of total timberland acreage in the area in 1994, yet 85% of standing sawtimber inventory over 100 years of age was on National Forest land. On forest industry timberland 71% by area is in even aged management, 26% uneven aged and 3% non-stocked. On even aged forest industry acreage 60.3% of stands were stocked with trees less than 50 years old in 1994. On non-industrial ownerships 41.9% of even aged stands were stocked with trees less than 50 years old. More recent data is not available.

Industry Responses / Capital Constraints

How is the industry responding to the constraints, cycles and industry dynamics outlined above?

Industry managers evaluate the economic potential of management decisions based on an assessment of the potential economic returns. In order to secure adequate capital to invest in timberland or processing capacity companies must provide, or at least project, adequate potential returns on the investment: returns that are competitive with other potential investment opportunities.

Ray Raphael in his conclusion to *More Tree Talk* further clarifies the issue:

> In economic terminology, we speak of the opportunity cost of capital: there is always an opportunity to do something else with your money. The opportunity cost of timber is extremely high because the capital is tied up for such a long period of time. Depending on the interest which could be made in other investments (called the guiding rate of interest, the hurdle rate, or, misleadingly, the discount rate) the opportunity can become a prohibitive factor in any long-term forest investment. For every dollar initially invested, a tree that takes 80 years to mature will have to return $23 at 4% interest, $224 at 7% interest, and $2,048 at 10% interest. If the guiding rate of interest is high, investments in the future resource base become financially untenable, since they won't be able to compete with other capital investments. When the cost of interest is taken into account, there is no genuine "long term" in the practical world of business. (Raphael 1994)

Gordon Robinson, in his book *The Forest and the Trees*, responds to the pressure placed on foresters to justify good forestry based on capital returns:

> Good forestry is not a lucrative business. Trees growing on our better lands become marketable for pulp in as short a period as 25 years. Trees can be mass-produced for

> pulp, rough lumber, and construction-grade plywood under sustained yield in 50 to 75 years. However, since it takes much longer to grow high-quality wood, a forest being managed for this purpose will seem uneconomical because it will always contain a large inventory of low-quality timber that could be sold. The higher the quality of wood one wants, the higher the inventory will be; it takes a lot of low-quality marketable timber to grow high-quality wood. Consequently, the value of the amount of timber that can be sold annually under a high level of sustained yield will never represent a high percentage of the *total* value of the forest because as the price of lumber rises, the value of one's entire inventory rises with it. Generally, the value of the sustained yield or the annual income of a well-managed forest will range from 1 to 2 percent of the cash value of the entire forest inventory. Likewise, a 1960 survey determined that the annual return on investment in commercial timberland in the United States was only 2.5 to 3.5 percent, far less than the 10 to 15 percent for other industries. (Robinson 1988)

Forest industry managers face volatile prices and exchange rates, supply constraints, and business cycles brought on by poorly timed changes in production capacity. Mergers and acquisitions assist companies in maintaining positive cash flows.

A March 2000 Reuters article titled *Globalization Catches Up with the Timber Industry* indicates that "a wave of consolidation has swept the industry." The article states:

> The strongest competitors are looking for ways to counter the increasing threat of cheap imports in their home markets, high taxes and transportation costs and the need to quickly expand production capacity in good times—before the cyclical timber business turns sour…
>
> "When companies from low-cost producing counties send imports (into the US), then domestic companies have to compete with those products," [Henson] Moore [chief executive officer of the American Forest & Paper Association] said. "Acquiring plants in those countries is a way of keeping some of the imports in check and also take advantage of the low cost. With globalization you have greater control over other countries' production."

For larger players mergers and acquisitions achieve several strategic purposes:

- Mitigation of the impacts of currency volatility.
- Mitigation of the impact of trade tariffs and other trade barriers.
- Mitigation of national restrictions on foreign access to resources and raw materials.
- And, for the largest players, mitigation of the business cycle itself through increasingly centralized control over the rise and fall of regional production capacity.

The *Who Will Own the Forest?* conference in 2003 discussed several trends in the ownership structure of both the timberland base and forest product manufacturing companies.

In response to market dynamics the major industry players, traditionally "vertically integrated" firms that both manage timberland and manufacture product are considering

the costs and benefits of "disintegration." This trend is most noticeable in the US south where over 1 million acres of industrial timberlands have changed hands. Many of these properties have been sold to TIMO's, (timber investment management organizations) who buy, improve and then sell timberland over periods ranging from 5-15 years.

Wood products manufacturing and timber management businesses also have different risk profiles. Investments in wood products manufacturing require tolerance for volatile markets, erratic cashflows, high capital intensity, and overall financial performance that is tightly integrated with the business cycle. Timberland investments offer lower volatility, steadier cashflows, limited capital requirements, and, for institutional investors such as mutual funds, low correlation with many other financial assets helping to diversify portfolios. Timberland investors appear able to accept lower returns for less risk. Forest products manufacturing investors expect higher returns to compensate for high risk. As a result institutional ownership of productive timberland is expected to continue to grow as long as industry consolidation trends continue.

Among these institutional investors are several conservation organizations. The potential for conservation organizations to funnel appropriate investment capital to long-term timber management focused on maintaining conservation values within a productive working landscape is just beginning to be realized. Again, as the FRAP report states:

> **In public opinion polls, an overwhelming majority view overall environmental problems such as air and water pollution, growth, traffic, and water supply as a threat to their health and well-being…. A major issue for the future of California's forests and rangelands relates to public perceptions of the <u>appropriate mix of private investments, regulation, public investments, and governance processes needed to achieve desired goals.</u>**

Current Policy Context

Achieving and maintaining economically viable and sustainable levels of production in California's forests and in California's forest products industry, if possible, will need to be accomplished by developing strategic objectives that are feasible, working with and within these trends, industry dynamics and constraints:

Globally

» Increasing horizontal financial integration of global forest products manufacturing..
» Increasing production in low cost regions.
» Increasing liberalization of international trade rules.
» Increasing productivity per worker – fewer jobs.
» Increasing global demand – China.
» Increasing vertical "dis-integration" of timberland ownership and forest products manufacturing.

Nationally

» Repercussions from the current Softwood Lumber Dispute.
» Increasing liberalization of US trade policy.
» Increasing US demand/consumption.
» Increasing competition for global supply – China.

» Increasing competition from low cost imports/producers including Canada and the US South.
» Increasing environmental constraints on supply: particularly in the US South.
» Continued restraint of timber harvests on federal forestland in the PNW.
» Ongoing business cycles in the global industry.

Key policy issues at the state and local level:

Lists of key policy issues and challenges at the state and local level tend to emphasize challenges and obstacles to industrial timber harvests. The FRAP report's focus on California's high volume of consumption and risks associated with high stocking levels tends to justify increased harvests of existing inventory. FRAP's focus on the declining productive land base due to timberland conversions, conservation constraints, and administrative withdrawals of land available for timber production identifies obstacles to increased harvest levels of existing inventory. FRAP's focus on the complexity of regulatory oversight and limited policy integration identifies a significant cost center for timber producers.

Given the industry trends, dynamics and constraints identified in this report it is important to point out:

» Increased access to California supply will not solve periodic overcapacity and oversupply conditions associated with global markets,
» Increased harvest of existing inventory will not increase the capacity of California's operable private forestlands to produce high quality timber,
» Increased lumber production in globally competitive and highly efficient production facilities will not return rural communities to historic levels of resource based socio-economic well-being.
» Intensive short rotation forestry will not increase fire safety in California forests.
» Simplification and reduction of California's regulatory processes and costs will not counteract global industry dynamics affecting states and provinces throughout the PNW.
» None of these actions will raise sawlog prices for California landowners.

ISF Response

ISF's mission is to promote sustainable forest management that contributes to the long-term ecological, economic and social well being of forest based communities in the Pacific Northwest.

ISF defines Sustainable Forest Management as:

Long rotation, uneven-aged, selection management that maintains:

» *stocking of diverse species in the full range of age classes up to 120 years or more for softwoods,*
» *habitat for sensitive species within the working landscape,*
» *high quality water through stream buffers and restoration of old roads and slides to stable conditions,*
» *fire safety through management practices that mimic natural fire conditions and include planned fire breaks, and*
» *forest productivity emphasizing high quality sawlogs.*

Sustainable Forest Management provides:

» Increased productivity in California's forests to meet California's wood product needs.
» Reduced fire risk to both ecological and economic equity.
» Maintenance and improvement of water quality to protect both ecological equity and downstream economic equity in homes and businesses, the recreational value of our streams and rivers, and native salmon populations.
» Maintenance habitat for sensitive species of plants and animals to protect ecological and economic equity.

Within the economic and policy context outlined in this report, north coast forest landowners and sustainable resource managers plan for harvests that may take place 30, 50 or 100 years from now.

Sustainable Forest Managers face:

» periodic business cycles that include short-term downward pressure on sawlog prices.
» potential loss of sawlog markets if existing mills close.
» mid-term downward pressure on prices from increasing industry investment and lumber production in low cost production areas.
» long-term prices projected to "continue to be weak for small-diameter logs."
» growing stock of primarily younger age classes on private ownerships.
» increasingly monopsonistic conditions in sawlog markets (consolidating infrastructure / fewer buyers).
» a relatively (to other softwood lumber producing regions) high harvesting cost structure.
» costly and burdensome regulatory procedures.
» no income from meeting social and political demands for ecosystem services.

Business cycles and long term tendencies towards increasing global competition both lead to lower prices in sawlog and lumber markets. Even periodic low prices are likely to encourage current trends including: decreasing harvests on non-industrial private ownerships, the break up of family ranches. Sawlog income may not be sufficient to carry the cost of regulation and the capital costs of maintaining large ownerships. Industry trends towards "dis-integration" of industrial ownerships and the loss of processing capacity and markets for local sawlogs are also critically important, both environmentally and economically.

To accomplish sustainable forest management objectives in the business climate outlined in this report, it will be necessary to increase income to forest landowners and forest managers.

An Opportunity: Potential Support for Sustainable Forest Management

Ecosystem services / Conservation priorities

For those who practice Sustainable Forest Management public demand (social and political, not economic) for conservation practices and environmental integrity can

represent an opportunity, rather than a constraint. If the social benefits, economic income, and ecosystem services that Sustainable Forest Management provides can be clearly documented, public support for environmental concerns and conservation values identified in the FRAP report can potentially be linked to programs that develop funds to support Sustainable Forest Management on private ownerships.

The challenge is to turn political and regulatory demand for social and conservation priorities into predictable income streams, established in relation to landowners costs, targeted at specific and documentable environmental and conservation objectives.

Environmental advocates, non-industrial landowners and sustainable resource managers all stand to benefit from a clear-eyed evaluation of methods to support Sustainable Forest Management that use market principles to allocate resources to the long-term benefit of California's citizens, forests, forest landowners, rural communities, and wood products consumers.

Possible forms of support for sustainable forest management

Regulatory relief

The Buckeye Forest Project policy proposals include 1) lengthen the time frame that THP's are active and 2) extend the acreage limitations on NTMP's to enable landowners to choose when they will harvest to avoid selling timber at the bottom of market cycles. These two proposals could provide significant benefits to landowners without compromising environmental integrity, particularly for Smartwood / FSC certified resource managers..

As stated earlier, based on overall industry trends it does not appear that regulatory relief alone will be enough to significantly alter the impact of global trends in production, prices and trade on California forest landowners and producers.

Additional forms of support for Sustainable Forest Management

- Increased funding for easements and other forms of conservation incentives.
- Developed markets for domestic carbon credits
- Financial assistance that offsets long term interest costs for investment in active Sustainable Forest Management on high site forestland.
- Policies that support clustered residential development and tradeable development credits in conjunction with working easements on productive timberland – particularly on low site or constrained TPZ forestland.
- Policies that support recreation, eco-tourism and other types of economic and rural development compatible with long rotation Sustainable Forest Management on low site timberland.
- Policies that support stream and slope restoration and restorative forestry in economic development priorities as aspects of maintaining and protecting the forest products, and commercial fishing economic clusters.