## Editor's Note

Economic times have always been difficult for loggers, and what I have been hearing and seeing lately has been evidence of one of the strongest downturns in a long time. The crisis in the mortgage market affected the real estate market, which affected the building products market, which affected the logging industry. Here, in the state of Louisiana, where the overall economy is still relatively strong compared to the rest of the nation, the Louisiana Logging Council estimates that 20 percent of the logging contractors have gone out of business within the past year, that the other 80 percent are in "dire economic danger," and that most of the survivors are companies that have "most of their equipment paid for." This means that many of them are surviving temporarily on their equity – obviously not a long-term solution. Many of the survivors have been forced to lay-off (terminate) employees. I know two leading, successful and stable logging companies that had to terminate half of their workforce.

On the positive side, at least one major forest products landowner is continuing with its investments in forest regeneration; if it does not, its tree stand age balance will be unbalanced, and it will be unable to take full advantage of any future upswing in the market.

As traditional forest products markets wane, many forest landowners are hopeful that the growing carbon credits market will replace or supplement current markets, especially for the small timber produced in forest thinnings. There is already a small, voluntary carbon credit market for forest landowners in the United States. The Obama administration plans to introduce legislation that will establish an official carbon credit market. In anticipation of this, there is already increased interest in investing in companies that hold timberlands. But, the devil is always in the details, and the forest products industry often is shorted when it comes to environmental legislation. Recently, an upper level corporate executive of a major integrated forest products company confided that the proposed legislation will likely put them out of business, despite the fact that they sequester huge quantities of carbon. While many landowners support the development of any additional markets for their timber, some question whether they would be doing so at the expense of their traditional markets. The economics of these scenarios in this country are still unknown and represent a keen research need.

With all of the major changes occurring in the forest products industry, there is a clear need for research that will help the forest industry improve in every aspect. All of the papers in this issue help further that goal. Accuracy in predicting costs of harvesting operations is important in assuring economic viability while remaining competitive. The papers of Pan et al. and Ghaffarian et al. address equations that will help improve cost predictions. Löfgren and Wikander's paper addresses machinery improvement from the standpoint of designing a more intuitive boom control. Hellström et al. look further to the future by addressing autonomous vehicle design. Spinelli et al. address a situation where harvesting conditions are greatly tempered by terrain, roads, capital investment requirements, and other factors. Finally, transportation of logs cannot be ignored since it represents roughly 70 percent of logging cost. Devlin et al. address a trucking situation to improve monitoring of transportation under the constraints of a design that resists tampering by the truck drivers. I hope you enjoy this issue.

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