

HE GROUND IN HAITI began to tremble at 4:53 p.m. on Jan. 12, 2010. The 7.0-magnitude earthquake included more than 52 aftershocks, which made it feel as though Mother Nature was shivering—an improbability in the humid Haitian heat.

Gary Funk was on his way to a music festival in Massachusetts when he heard the news. "I was strangely struck by it," recalls Funk, then a choral professor at the University of Montana, now retired. "I made a rather instant decision that I was going to redesign our spring-semester concert. I switched it from 'An Evening with Mozart' to 'Requiem for Haiti'—a requiem, of course, being a mass for the dead."

Soon after, Funk learned of Haitian surgeon Patrick Jeudy, whose clinic was destroyed by the earthquake. He collected \$1,400 on Jeudy's behalf at the concert, which inspired a second fundraiser that raised another \$10,000 toward rebuilding the razed clinic. Jeudy, who attended in person, also received construction plans donated by local architects, who envisioned a new clinic made of wood instead of concrete.

"We were standing on the porch of ... a big log cabin near Alberton, Mont., right at the edge of the forest, and [Jeudy] said, 'If I only had 40 trees I could rebuild my whole hospital,'" Funk recalls. "A few weeks later I was driving through the Helena National Forest,



which has been [60 percent] consumed by the pine beetle epidemic, and his voice came ringing in my ear. I stopped the car and thought, 'There's enough wood here to rebuild the entire nation of Haiti.'"

The earthquake destroyed or severely damaged 250,000 residences and 30,000 commercial buildings. Because 98 percent of the nation's forests were cleared for farming and firewood in the last century, most of the buildings were made from concrete. Replacing them with wood structures, Funk learned, would offer better protection in future hurricanes and earthquakes while creating up to 1,000 jobs in the wood products industry, which in Montana was operating 30 percent below capacity.

"I learned there were 5 or 6 million acres of dead standing timber in Montana alone at that time—about 40 million acres in the Western states altogether—and that the wood is viable for construction as long as it's harvested within five years of the death of the tree," Funk says. "If we could find a way to get this wood to Haiti, we could create jobs in the wood products industry, help restore the health of our forests and help rebuild Haiti."

Today, Funk is realizing his vision as president and founder of Wood for Haiti, a nonprofit that plans to build 180,000 disaster-proof homes in Haiti using beetle-killed U.S. timber. "We can use this project to

rebuild Haiti and give our own economy a shot in the arm," he says. "It's a no-brainer."

Although natural disasters are traumatic, Wood for Haiti is proof that behind their initial devastating blow is a silver lining for affected communities and the industries that rebuild them: Adequately prepared for the challenges of reconstruction, both can benefit—and rise from ruin stronger and smarter.

THE ECONOMICS OF DESTRUCTION

If the U.S. lumber industry can feel an earthquake in Haiti, imagine the potential impact when disaster strikes at home.

"The need for building materials is great in areas impacted by a natural disaster, both in the immediate days for crucial repairs and over the following weeks, months, and years as residents and business owners rebuild," says Greg Wells, brand marketing manager for forest products company Weyerhaeuser, which donated two truckloads of building materials to assist with

rebuilding efforts in Joplin, Mo., after a tornado devastated the town in 2011. "Weyerhaeuser responded after hearing from local officials that construction supplies in the area had been exhausted."

The sudden demand for a high volume of building materials means the lumber industry often swells after a disaster. "Any time you stress the supply of a good, price is going to go up," says Kevin Simmons, Ph.D., a professor of economics at Austin College in Sherman, Texas, who recently graphed a 30-year price history of plywood and found that prices doubled in the six months after Hurricane Andrew, which blew through Florida in 1992.

Economist Peter Morici has made similar observations. "Lumber does very well [after a disaster] because you have to rebuild all these houses—and they're probably bigger houses than were there before," says Morici, a professor at the University of Maryland, who predicts that America's most recent disaster—Superstorm Sandy—will yield a total economic benefit of \$27 billion to \$36 billion.

On the strength of Morici's forecast and others, U.S. lumber futures hit a 19-month high on Oct. 31, 2012, two days after the storm. Rising 5 percent, according to *The Wall Street Journal*, the gains were reminiscent of Hurricane Katrina, after which the price of lumber futures rose a whopping 15 percent.

Just weeks after Sandy, lumber wholesalers in hardest-hit New York and New Jersey already were predicting a surge in business. "There's going to be a tremendous need for decking and pressure-treated lumber [as storm victims replace and repair their decks]," says Rich Marsh, regional sales manager in the North Brunswick, N.J., office of Parksite, a lumber wholesaler that specializes in decking and trimboards. "We could see 20 percent growth in some product lines in 2013 [due to the storm]."

THE DOWNSIDE OF UP

Although the potential for gains is real, the increase in demand is temporary and the business infusion finite, experts caution.

"If you look back at Hurricane Katrina or Hurricane Andrew, two of the more significant disasters that have hit the country, rebuilding does create demand for product," says Bob Berg, principal lumber economist at wood products intelligence company RISI. "The problem is it takes a long time to rebuild. The demand gets metered into the market gradually over a period of time, so it's almost like you don't even notice it."

Indeed, before rebuilding can commence, disaster-torn communities must clear debris, file insurance claims, revise building codes and obtain permits, all of which takes





In the event of a natural disaster, lumber wholesalers are ideally positioned to help communities rebuild. In order to do so, however, they must first mitigate the disaster's impact on their own business—or risk being a victim instead of a responder.

Step one is consulting Ready Business, launched in 2004 by the U.S. Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA) with the goal of helping business owners and managers prepare their employees, operations and assets in the event of an emergency.

"Emergencies, including natural disasters and potential terrorist attacks, can paralyze business operations," reads a Ready Business fact sheet. "Having an emergency plan can help protect a company and maximize its potential to survive and recover after an incident."

To access free Ready Business resources—including disaster planning information, templates and exercises—visit **www.ready.gov** or call **1-800-BE-READY**.

time. "When a big natural disaster comes through, people think there's going to be some kind of immediate reaction," points out lumber analyst Matt Layman, owner and publisher of Layman's Lumber Guide. "The time frame these things happen in is absolutely no sooner than two years. Usually, it's in the two- to five-year range."

Layman's analysis echoes that of Richard Kleiner, director of international market development at the Southern Forest Products Association (SFPA) in Kenner, La. "After Hurricane Katrina, they spent a year removing debris," he says. "They spent another year deciding what to build. Not until the third year did any substantial reconstruction get under way."

Even when reconstruction does get under way, the impact is short-lived, adds SFPA President and former Home Depot executive Stephen Conwell. "There are lumber dealers in Louisiana and Florida whose sales skyrocketed after [Hurricanes Katrina and Andrew]," he says. "In South Florida, [building codes after Andrew required] double-hung windows where you'd never had double-hung windows before. Pella was spewing out windows like crazy, which caused the entire window market to go up 15 percent. But did that help the local economy in the state of Florida? Not really, because it was phased in and then phased out. They went from doing a ton of business to doing no business [once reconstruction was complete]."

READY, SET, BUILD

Natural disasters' economic impact is debatable. Their inevitability, however, is not. Businesses throughout the lumber supply chain must therefore be prepared to meet increased demand not if—but when disaster strikes.

Right now, most aren't. "Where the market is right now you've got fewer suppliers of the product operating at two-thirds capacity [because of the financial crisis]," Layman explains. "They've sold off real estate, sold off trucks and got rid of staff, so the ability to gear up even without a natural disaster already is limited. They already were overwhelmed in 2012 by the new volume of business [from increased housing starts]. If 2013 sees the same increase in business as 2012, the lumber industry could conceivably get overwhelmed with the inability to meet demand."

Whether the next disaster strikes in five months or five years, mitigating supply-chain stress requires capital first and foremost, argues Layman, who recommends shoring up ample credit and cash before, not after, you need it. "[After a disaster] inventory will be turning quicker," he says. "You're going to need more trucks, more forklifts, more people. You're going to have to get really smart about how you finance all of that."

Parksite was having conversations about capital just weeks after Sandy. "We're anticipating the increase [in demand], and we're taking measures to make sure we've got the structure in place to support that increase," says Marsh, who cites additional racking, inventory capacity, trucks, drivers and warehouse personnel as planned investments.

Logistics is equally important, so investments in technology are key.



This elderly woman walked seven hours to hear about Wood for Haiti.

"You have to be really sharp about how quickly you can get product into your yard, how quickly you can process it and how quickly you can get it delivered," Layman says.

The final piece in the supply-chain puzzle is relationships, according to Wells, who recommends establishing proactive partnerships with vendors, customers and even competitors. "In cases where a disaster has reduced capacity or inventory, teamwork is key, as companies turn to their sister locations or close partners to fill in—whether with product or people—to help keep supply lines open," he says.

Ultimately, disaster planning is tantamount to tightrope walking: Being over-prepared means bankrupting your business with excess inventory and infrastructure; being under-prepared, however, means sacrificing sales. "You have to decide what the optimal level of excess inventory is that will handle 90 percent of contingencies," Simmons says. "Then, for the other 10 percent—the Andrews and Sandys and Katrinas—you have to have a plan in place to respond."

Concludes Layman, "You can't predict where the next natural disaster will hit. What you can do is revolutionize and streamline your business to be nimble and quick when it does." •



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