

SUPPLY CHAIN FOR



THE GREATER GOOD

BY INGRID OSTBY

Operations management without borders

Through the successes and mistakes of disaster relief efforts, members of the supply chain and logistics communities have realized how to leverage their professional knowledge and resources in order to help those in need. Whether providing aid after natural disasters or finding alternative ways to educate, feed, and keep children healthy in India, professionals are beginning to use their supply chain education toward greater causes. In order to streamline these efforts, businesspeople must focus on the importance of supply and demand in disaster relief efforts and creating and maintaining strong relationships with suppliers.

When Hurricane Katrina destroyed New Orleans in 2005, the disaster was more than just the fault of nature. Relief efforts were scrambled, and the majority of the victims were left without necessities. There were too many people to feed, shelter, and keep safe—and the organizations involved did not have adequate systems in place to immediately aid all of those suffering.

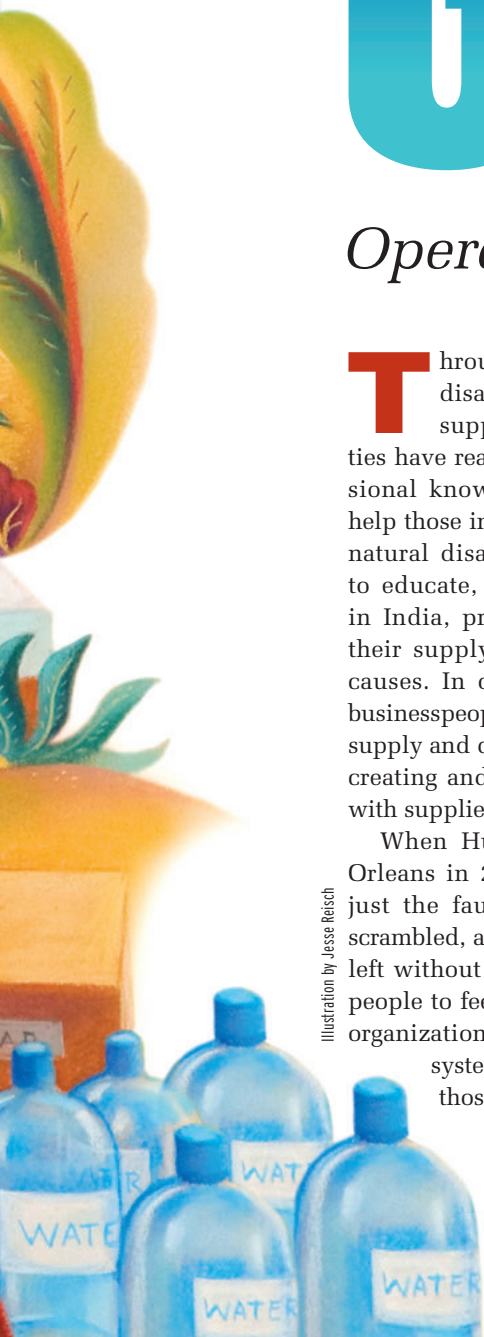
Perhaps, had the nonprofits and government agencies assigned to help been versed in supply

chain principles, the victims and the area as a whole would have been affected significantly less. What Americans viewed as unpreparedness and disorganization might have been—from a supply chain perspective—a lack of supplies and an excess of demand, bottlenecks in the chain, and miscommunication among suppliers.

Maybe disaster relief failures simply are supply chain issues. Like supply chain processes, both natural and man-made disasters are difficult to forecast. To best prepare, communities need to establish an executable plan of action; have dependable suppliers; maintain the best relationship possible with those suppliers; and make sure that, when a disaster occurs, community leaders deliver the most accurate quantity of necessary resources in a timely and efficient manner.

Mark Richards is the vice president of Associated Warehouses Inc. and vice president of the American Logistics Aid Network (ALAN). Having seen what happened during the Hurricane Katrina aftermath, Richards was astounded by the inadequacy of the relief efforts. He knew—as a logistics professional—that he could really make a difference in how disaster relief is executed.

Illustration by Jesse Reisch



“When we saw all that [happened after Hurricane Katrina], I thought, ‘Wow, it’d be kind of neat if we could take all of the people who are in the profession and somehow bring them together so that, when the next tragedy hits, we can help support the recovery.’”

Richards and other logistics professionals formed ALAN, a network of associations that represents supply chain professionals with the ability to provide adequate resources in response to disasters. The network connects individuals and companies to humanitarian relief efforts using logistics principles and techniques to aid communities struck by disaster. “In a real macro sense, it’s as simple as having the right stuff in the right place at the right time,” Richards says. He and his colleagues say one of the biggest issues is when, for example, someone from the Red Cross publicizes the need for shoes in a devastated community, and hundreds of pairs of shoes go to one certain place—bogging down the supply chain.

“You want to have a supply chain clear and free flowing,” Richards says. When there is a bottleneck, it not only hurts the product going from point A to point B, but also creates a domino effect along the chain. Likewise, the most important things to keep in mind in disaster relief efforts are key elements

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to successful logistics: streamlining, getting the product there on time, communications, and visibility.

“Those are all things that come into play that, for us [in the logistics profession], are just second nature,” Richards says.

One of the most significant contributions to disaster relief that ALAN leaders have made occurred after Hurricane Gustav in Fall 2008. Though ALAN professionals were not completely prepared to begin operations, they believed action needed to be taken, so ALAN opened for business. The organization set up a process enabling relief agencies to submit needs through a portal, and those needs become visible to people in the supply chain through the ALAN portal. In this particular case, there was a need for hospital beds and wheelchairs.

Before ALAN, that request would have gone out, but probably never have reached the people able to respond, or

it would have been communicated in such a way that suddenly there were far too many wheelchairs of incorrect sizes being sent to the wrong place. Instead, ALAN workers were able to use the communications capabilities of their partners. These associations sent out an urgent communication to their members telling them to visit the ALAN Web site to review what was needed.

Leaders at Invacare Corporation, a global manufacturer and distributor of medical products, saw the needs on the ALAN Web site and were able to provide their product to the victims immediately. “It was really great because they had exactly what was needed in the place where it needed to be at the time that it needed to be there,” Richards says. As an added bonus, the wheelchairs that were sent down to aid the disabled and elderly victims of Hurricane Gustav happened to be an old model that Invacare was cycling out at the time, which helped the company alleviate an inventory issue.

Moving forward, ALAN leaders have set specific goals to make sure communications run smoothly when the next disaster hits. For one, they are enhancing and refining their network. They are focusing on developing a more efficient and effective method to communicate with all the people who have shown interest



Get Involved

APICS and the American Logistics Aid Network (ALAN) recently have developed a partnership to help ALAN connect disaster relief organizations with the supply chain resources they need. Through this alliance, APICS members, chapters, and districts will provide expertise to disaster relief organizations. More than ever before, the involvement of APICS-educated professionals is especially important. Relief agencies are able to use the techniques and best practices in the APICS body of knowledge to maximize resources and minimize waste. Get involved at www.apics.org/membership/alan_partnership.

in helping. They also are enhancing their technology for heightened visibility into relief needs.

Global aid

Outside of the United States, an enormous need exists in developing nations. Many people suffer from not having enough water, pollution, inadequate sewage, and severe housing shortages.

Sameer Prasad Ph.D., professor of operations and supply chain management at University of Wisconsin-Whitewater and the advisor of the APICS student chapter there, currently is working with a group of university students to develop a forecasting system for a cooperative group in Mumbai. Prasad uses western supply chain concepts to aid various groups of low-income, small business owners in rural areas of India. His focus is on applying operations and supply chain principles to his work, creating models to better outcomes and observe how disasters might affect different classes of people.

While the world experiences a global recession, professionals in the developing world especially are hard hit. “We always hear how small manufacturers are having difficulty surviving in the United States. You know, the Wal-Marts of the world are taking over,” Prasad says. “That’s happening in the developing world extensively ... because there, you don’t have formal employment. Either you start your own business or you’re out of a job [and] out of money.”

Consequently, a lack of formal employment in rural India has left many families in poverty and many children without the proper necessities to survive, forcing some to migrate to the already crowded Mumbai. Prasad wanted to help, so he began using operations management principles to better understand what was needed. He traveled to India to talk to government officials

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and assess the situation. He also visited the state of Andhra Pradesh, a coastal area in the eastern part of India, seeing first-hand the dire situation of the children there. “There’s extreme poverty. The families we are dealing [with], they earn \$200 dollars,” he says.

The lack of infrastructure and available resources in these rural areas results in many of the children being malnourished, as well as a multitude of other health care and education issues. “We can view this problem as a disconnect in the supply chain in the lines of the bullwhip effect, where the loss is a child’s potential,” Prasad says.

Prasad has created and applied a supply chain model to provide care in Andhra Pradesh to children at risk, such as orphans and those involved in child labor. Recognizing the difficulty of providing food and medication for a large population of people, he and his colleagues have aimed to streamline the process for a smaller number of children.

“You want to think of it as a supply chain problem, because if you’re in a rural, poor area, the food


supplies are not reaching [those who need them]. You need the materials to be there,” Prasad says. “All those things—they’re not being done.”

With the assistance of spreadindia.org and funding from IDSUSA.org in 2008, Prasad and his colleagues were able to set up a safe haven for children. His team has combined the supply chain streams into a single point of delivery. “We have been quite successful with the 37 boys in our care,” Prasad says. “We can look at their health care specifics, for example, their weight and height gain—they’ve all shown significant increases.” He also notes that many of them weren’t going to school. Now, however, he has seen a 16 percent improvement

in the boys’ grades within just a few months of being at the facility.

Soon, they will be setting up a similar facility for girls, with added support from Lions Club International.

In addition to visiting the boys’ facility in Andhra Pradesh yearly, Prasad relies on supply chain management skills and supplier selection to maintain the program. “It would’ve been impossible for me to create this all myself and run it [without them],” he says. He adds that he thinks about it as an overseas factory of a company in the supply chain—the same type of maintenance applies.

Prasad says he and his students have learned a lot from applying supply chain principles in India. He believes that many important lessons also can be taken away from how the infrastructure in India works. “We can learn from both ways,” he says. 

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