SHENZHEN, CHINA -- Benny Fung, the head of Hong Kong-based soap and cosmetics maker Lutex, seems to have an eye for detail. The meeting room at his factory here in southern China is lined with neatly packed gift baskets. His jacket has a thin purple velvet accent around the lapel to match his purple tie.


As a result, Lutex has been paying attention to more efficient light bulbs, better ventilation and less packaging. It switched from Styrofoam to recycled paper and saved enough Styrofoam to cover four football fields. And Lutex, which has been here since 1991, says it treats four tons of wastewater that it used to dump into the municipal sewage line. That water was supposed to be treated by the city, but like three-quarters or more of China's wastewater, it almost certainly wasn't.

"We heard that in the future, to become a Wal-Mart supplier, you have to be an environmentally friendly company," Fung said. "So we switched some of our products and the way we produced them."

Wal-Mart has more than 10,000 suppliers in China. In addition, about a million farmers supply produce to the company's 281 stores in China. If Wal-Mart were a sovereign nation, it would be China's fifth- or sixth-largest export market. So the company hopes that small measures taken by all suppliers start to add up. Its 200 biggest suppliers in China have already trimmed 5 percent of their energy use.

In the past, environmental concerns have taken a back seat to growth in China and to costs for Wal-Mart. And China and Wal-Mart have come under sharp criticism for conditions in factories. Yet pollution now threatens China's growth; as a result, awareness of climate change and energy security has spread in China. Likewise, as consumers grow more environmentally aware, Wal-Mart's executives have responded. On Thursday, the company pledged to reduce its greenhouse gas emissions by 2015.

In October 2008, Wal-Mart held a conference in Beijing for a thousand of its biggest suppliers to urge them to pay attention not only to price but also to "sustainability," which has become a touchstone for many companies.

"For those who may still be on the sidelines, I want to be direct," Wal-Mart chief executive Lee Scott said sternly. "Meeting social and environmental standards is not optional. I firmly believe that a company that cheats on overtime and on the age of its labor, that dumps its scraps and its chemicals in our rivers, that does not pay its taxes or honor its contracts will ultimately cheat on the quality of its products. And cheating on the quality of products is the same as cheating on customers. We will not tolerate that at Wal-Mart."

Now new suppliers are screened for environmental practices.

Many China experts say Wal-Mart's guidelines could be more important than the government's.

"They are the rule setters," said Ma Jun, director of the Institute of Public and Environmental Affairs, a Beijing-based group. "Before Wal-Mart only cared about price and quality, so that encouraged companies to race to the bottom on environmental standards. They could lose contracts because competition was so fierce on price."

Wal-Mart's suppliers have been forced to get serious about pollution, Ma said. "Wal-Mart says if you're over the compliance level, you're out of business. That will send a powerful signal."

In many cases, Wal-Mart is first trying to bring firms up to government standards. Ma added that suppliers "may not care about government fines, they may not care about exposure. . . . But they care about the order from the buyers."

Skepticism persists
Not everyone is convinced of Wal-Mart's message. Many critics argue that Wal-Mart's long-standing commitment to "everyday low prices" fosters a disregard for labor and environmental standards. China Labor Watch, a New York-based organization devoted to workers' rights in China, said in a report last Thanksgiving that "the case of Wal-Mart . . . shows that corporate codes of conduct and factory auditing alone are not enough to strengthen workers' rights if corporations are unwilling to pay the production costs associated with such codes."

China Labor Watch pointed to five factories where it said workers lived in overcrowded and unsanitary conditions and were forced to work excessive overtime without adequate pay. Moreover, it said, two of the five had plotted to deceive Wal-Mart auditors and had coached workers to lie during the audits.

Wal-Mart says that it is doing its best to monitor conditions at its suppliers but that it's a daunting task. Until April 1, it relied on its own auditors, who visited about a tenth of the more than 100,000 suppliers the company has worldwide, focusing on the largest. Moreover, many of its goods come through intermediary firms that use their own suppliers. Since April, the company has turned to independent auditors, as recommended by China Labor Watch and others.

Wal-Mart's own 2008 audit report said: "We commonly encounter factories that do not comply with the work hours standards, specifically the standards related to the permissible maximum number of regular work hours and overtime hours that a worker is allowed to work during a given day, week and/or month. Additionally, inconsistent time records are often found in this region, and we also have noted that many factories in this region are not paying all mandated benefits to workers."

Richard J. Coyle, formerly senior director for international corporate affairs, said that in 2008, Wal-Mart worldwide suspended 126 suppliers for a year and permanently halted purchases from 35 others. He said figures for 2009 weren't available yet, but he stressed that the company's goal was to resolve problems and improve conditions.

Coyle said that Wal-Mart has visited the five factories highlighted by China Labor Watch but that it hasn't dropped any of them. "Some things we were able to confirm, and some things we weren't," he said. "Sending in auditors several weeks afterwards, things may have changed. You're doing a snapshot in time; they're doing a snapshot. Where we could put changes in place we did. It's our goal and their goal to change conditions in those factories."

Whether this will help Wal-Mart's relations with U.S. customers isn't clear.

"Our customers care; they just don't want to pay more," one Wal-Mart executive said.

Cleaning up

The Lutex plant in Shenzhen is a small part of the global low-cost workshop. The company opened a factory here in 1991 to make soap and detergents for export, and it has moved up the value chain to fragrances and cosmetics, expanding its offerings for Wal-Mart and others.

The company's technology expert Alan Wong notes that Lutex has installed motion-sensor-controlled lights in its warehouse; captured waste heat and steam and reused it; installed a catalytic converter on its chimney to capture sulfur dioxide emissions; and upgraded motors for an energy saving of 30 percent. It also increased the energy efficiency of an assembly line for shrink-wrapping packages (eliminating the jobs of people who had wielded hair dryers to finish the work).

Those measures saved money for Lutex, but some changes raise costs. Soap and cosmetics manufacturing produces fatty acids that act as nutrients for algae, a major problem in Chinese rivers and lakes. New equipment and septic tanks were installed to treat wastewater.

"Within these five years, the whole factory has changed tremendously," Wong said.

It remains factory work, however, and the assembly lines look relentlessly dull. During a recent visit, a line of workers filled bottles with Cindy Crawford perfume. Another line wrapped watermelon- and kiwi-colored soaps.

Living conditions are typical for southern China. Workers live in cramped dormitories with a big kitchen and movies and karaoke for diversions. There is space for a dozen or more to share a room when the factory is running at full capacity.

Labor costs have risen, Wong said; a worker typically earns as much as $132 a month.

The food chain

Another area in which Wal-Mart is seeking environmental improvements is its food suppliers. Working with the Ministry of Agriculture and large independent cooperatives and distribution companies, Wal-Mart is trying to cultivate healthier farm techniques, with less pesticide, more organic fertilizer and more-efficient water use.

The company is also buying directly from farmers and independent distributors, cutting out middlemen to save money for itself and boost the incomes of farmers. It also hopes to cut waste; until recently, about a third of food rotted on the way to market in China.

In Wafangdian, northeast of Dalian, a food grower and distribution company called Xingyeyuan is helping Wal-Mart. It grows oranges, apples, pomellos, pears and grapes, and it buys from smaller farmers in the region.

The company has "grown up with Wal-Mart," said Amy Liu, one of two sisters who started the business, as she guided a visitor through the company's cavernous warehouse. The daughters of subsistence farmers, they were supplying street markets when a Wal-Mart buyer discovered them a decade ago. Now their company has grown into one of China's major distributors, with a huge nitrogen-cooled storage facility in Fenggou village that is the largest in northeast China.
Xingyeyuan has also changed some of its farming techniques, using organic instead of chemical fertilizer, and it is devoting a fifth of its 10,000 acres of apple orchards to Wal-Mart’s direct farm program.

The Liu sisters are working with Wal-Mart -- and the Dalian city government, which is providing the money -- to help hundreds of small farmers build rudimentary greenhouses, made of wood and plastic sheeting, in which they grow oranges in midwinter to sell to Wal-Mart’s direct farm program.

Zhang Fengquan is one of those farmers; he gathers more than three tons of nectarines from more than 400 trees in his greenhouse. Asked what he did during the winter before the greenhouse was built, he said he worked as a seasonal laborer. Or played mah-jongg.

In the wake of a milk contamination scandal in China last year, Chinese consumers are paying more attention to food quality. Wal-Mart has a bright green and yellow label to identify fruits from farms that meet its standards, although the standards are not up to U.S. organic levels. It promises a minimum price so farmers won’t have to cheat on practices to get by. By November, a quarter-million farmers were part of the program, and Wal-Mart hopes a million will eventually take part.

Wal-Mart sees this not just as good practice but also good marketing.

“We hope to get more customers,” said Barry Friedman, vice president for corporate affairs in Beijing. “We’re not doing it solely out of the goodness of our hearts.”