

The Greening of Walmart¹

"I believe each of us can travel down multiple paths in our individual journeys toward sustainability. But no matter which path we take, we all have a responsibility to start the journey. It is the responsibility of every corporation to be more sustainable...And there is tremendous potential in doing it – to be profitable, to help people and to sustain our planet." H. Lee Scott, CEO of Walmart.²

From its modest roots as a single store opened in 1962 in Rogers, Arkansas, Walmart has grown to become the world's largest retailer and the world's largest public corporation by revenue (Exhibit 1). It has been reported that nearly one-third of the U.S. population visits a Walmart each week and in 2010, the average U.S. household's spending at Walmart equaled 5% of the U.S. median household income.³ Worldwide, Walmart operates over 7,800 stores covering 872 million square feet (more than 11,000 soccer fields, or 31 square miles). No matter how it is measured, Walmart's potential influence is substantial.

Walmart's embrace of sustainability began in 2005, shortly after Hurricane Katrina devastated New Orleans and the surrounding coastal region. Lee Scott, the CEO at the time, saw how Walmart could be a force of good by delivering desperately needed supplies to victims. He asked: "How can we be that company – the Walmart we were during Katrina – all of the time?" Sustainability was part of the answer and they established three aspirational goals:

- To be supplied 100 percent by renewable energy;
- To create zero waste;
- To sell products that sustain people and the environment⁴.

These three goals have led to 37 specific initiatives that touch upon not only what Walmart sells but how they sell and how they they interact with their entire upstream supply chain (Exhibit 2). Even their 19 year old slogan, "Always low prices, always", was replaced in 2007 with one that subtly conveys a message of sustainability - "Save money, live better":



To Walmart, saving money and sustainability are mutually reinforcing, a view shared by their current CEO, Michael Duke, in their 2010 Global Sustainability Report:

¹ January 2011, updated February 2012. This case was written by Professor Gérard P. Cachon (The Wharton School, University of Pennsylvania) as the basis for class discussion rather than to illustrate effective or ineffective handling of an administrative situation. Copyright © 2012 by Gérard P. Cachon.

² Lecture to the Prince of Wales' Business & Environment Programme, February 1, 2007.

³ Sales revenue from Walmart 2010 10K. Number of U.S. households and median household income from the U.S. Census Bureau.

⁴ The third goal was originally "To sell products that sustain resources and the environment".

“When we look at the world today and the trends that will shape the world in the future, we see that sustainability is no doubt one of Walmart’s greatest opportunities to make a difference for our business, our communities, our customers and the planet.”

Sustainability Value Networks

It was not enough to articulate some broad objectives relative to sustainability – if Walmart were to make real progress, they would need to develop an organizational strategy. And while they knew how to be an efficient retailer, they knew very little about sustainability. So Walmart created a number of “Sustainable Value Networks”. Each network was a team of individuals focused on a product category or an operational function: e.g., greenhouse gas, facilities, logistics, waste, packaging, wood & paper, agriculture and seafood, textiles, jewelry, electronics, and chemicals.

Naturally, Walmart executives would be on these teams, but so would a number of people from outside of Walmart, including academics, suppliers, scientists, and members of environmental groups and nongovernmental organizations. These teams were tasked with meeting frequently (once a month), setting goals and identifying potential projects. By inviting outsiders into Walmart through these Sustainable Value Networks, Walmart hoped to quickly gain expertise and to do so with low cost - the non-Walmart members were not hired consultants, but instead participated voluntarily. For example, with people from the Rainforest Alliance on the wood value network, Walmart could quickly learn what it would take to sell environmentally friendly wood products.

Customers and assortment

In the U.S. the average Walmart customer has a lower than average income. In fact, it has been estimated that 20% of Walmart customers do not have a bank account, twice the national average. Nevertheless, Walmart believes their customers are interested in products that contribute to sustainability, especially when these products save them money. An early success came from compact fluorescent lights (CFL). CFLs had been available in the U.S. since 1979 but they never caught on, in part due to their higher up-front cost relative to an incandescent bulb (about 8 times more). But a single CFL saves its user \$30 over its useful life, which is why late in 2005 Walmart set a goal to sell 100 million CFLs by 2008. To achieve this, they needed to convince their suppliers to make changes, given that their factories were setup to churn out primarily incandescent bulbs. Suppliers were hesitant but a Walmart buyer responded with “We are going there. You decide if you are coming with us.” For its part, Walmart emphasized the long run savings of CFLs in their merchandizing and gave CFLs prominent shelf space, among other techniques to convert consumers. To date they have over sold 350 million CFLs in the U.S. (See Exhibit 3 for data on the U.S. market.) These 350 million CFLs, relative to 60 watt incandescent bulbs, reduce U.S. emissions by approximately 15 million metric tons annually, which is comparable to removing 3 million vehicles from the road each year.⁵

Laundry detergent provided Walmart with another opportunity to change behavior. Proctor & Gamble was selling Tide in a 100-fluid-ounce jug whereas Unilever was offering its detergent, All, in 32 ounces. Both were good for 32 loads of laundry, but the more diminutive All required less shelf space and was cheaper to transport. Despite the fact that a larger package signals more value to consumers, Walmart

⁵ Assume the average emission per kWh is 0.65 of CO₂ equivalents, a CFL operates with 13 watts, and the light is used 4 hours per day. Furthermore, assumes each vehicle is driven on average 11,450 miles per year and obtains 21.5 miles per gallon.

pressed P&G for a concentrated version of Tide, and they obliged. Once P&G offered a concentrated product to Walmart, they also made it available to other customers.

Whereas customers needed convincing with CFLs and concentrated laundry detergent, back in 2004 Walmart discovered that “sustainable” could sell without any extra effort - Coral Rose, a buyer for Sam’s Club, purchased 190,000 organic cotton yoga outfits that sold out in 10 weeks. Lee Scott remarked “We gave our customers something they wanted, but something they might not have been able to afford at specialty stores.” Walmart began working with the nonprofit trade group, Organic Exchange (which is now called the Textile Exchange), to better understand organic cotton production. They learned that traditional cotton production required a lot of water and utilized many hazardous chemicals. In addition, there was not enough organic cotton production in the world to satisfy their needs, in part because of the difficulty a farmer faced in switching to organic production – a farmer can sell his cotton as organic only after three years of not using chemicals. To provide the financial security farmers needed to make the switch, Walmart departed from its standard one-year contracts and offered farmers five-year contracts. They are now among the world’s largest buyers of organic cotton.

Internal supply chain

There are many superlatives that can be used to describe Walmart’s internal operations. For example, Walmart is the largest private user of electricity in the United States. In fact, it has been estimated that Walmart consumes nearly 0.5% of all U.S. electricity - 2010 electricity consumption in the U.S. was 3.879 billion megawatt hour.⁶ At \$0.10 per kWh, half of a percent of 2010 U.S. consumption would cost nearly \$2 billion. Before 2005, very little of the electricity Walmart consumed was renewable, but by 2009 Walmart produced 17 million kWh of electricity via its own solar panels and in Texas it contracted to purchase 226 million kWh of wind produced electricity annually (estimated to be 15% of the need for 360 facilities).

In logistics, Walmart owns the 2nd largest private fleet of vehicles. A key initiative, announced in 2005, was to increase their fleet efficiency by 25% by 2008 and to double their efficiency by 2015. Here, “efficiency” means the number of cases delivered per gallon of fuel used. This goal required a multi-prong approach including: (i) retrofitting vehicles with skirts to improve aerodynamics; (ii) purchasing new, more fuel efficient vehicles; (iii) optimizing route structures to reduce miles traveled with an empty trailer; and (iv) experimenting with hybrid trucks. So far in the U.S. they have improved their efficiency by 60% (2005 baseline).

In 2005 Walmart announced that it would build at least one pilot store in each of its major markets that was 25-30% more energy efficient and produced 30% fewer greenhouse gas emissions (relative to 2005). This objective has been met through the use of water source heat pumps to heat and cool via refrigeration waste heat recovery, light emitting diode (LED) lighting in refrigerated and freezer cases, solar power on-site systems, “green walls” that use plant growth to reflect heat, skylights to utilize natural light during working hours, and green areas around stores to filter sediment from rainwater to provide water for non-potable uses within buildings, among other technologies. Five prototype stores built in Brazil generate 66% fewer GHG emissions, use 25% less energy and consume 40% less water.

Reducing waste is another important goal – why pay for something to be brought to a store and then have to pay to get rid of it? As the largest grocer in the U.S., Walmart has a considerable amount of food that it cannot sell but is still viable. Consequently, the majority of their excess food is donated to the Feeding

⁶ U.S. Energy Information Administration. A megawatt hour equals 1000 kilowatt hour.

America program which delivers the food to food banks throughout the country. Shopping bags are a visible sign of waste in retailing. In California, Walmart has begun to experiment with eliminating all plastic bags – customers can use their own reusable bag or purchase reusable bags from Walmart.

External supply chain

Walmart recognized that the direct environmental impact of their operations may be small relative to the total impact of their merchandise – e.g., 90% of the total carbon footprint of the products they sell is due to sources other than their own stores and trucks. Hence, sustainability requires action across the entire supply chain. With over 100,000 direct suppliers scattered throughout the globe, any effort to influence this network faces considerable challenges.

One method to have influence is to work directly with suppliers. In 2007 Walmart established its Supplier Energy Efficiency Program. Using its knowledge of energy efficiency assessment and technologies, this program offers consulting services to Walmart's suppliers – they visit the supplier and provide an analysis of potential energy savings. By 2010 they have completed 20 projects and had 40 more in the pipeline. In its first year it reduced emissions from suppliers by 3,300 metric tons and saved \$200,000 in electricity costs. The program is even open to non-Walmart suppliers.

Another path to influence is through measurement – collecting data focuses attention on what is being tracked. To this end, in 2008 Walmart started to collect a “packaging scorecard” on its suppliers to rate the sustainability of their packaging, with the objective to reduce total global packaging by 5% by 2013 (2008 baseline). Packaging is a particularly suitable target for waste reduction – it has a very short useful life and it adds weight and size to products (which makes them less efficient to transport). Indeed, one third of the solid waste in the United States comes from packaging (e.g., boxes, foam, soda cartons, blister packs, etc.)

In July 2009, Walmart announced a more ambitious tracking effort – they began a three phased approach to develop a sustainability index for their supply chain. In step 1, Walmart's direct suppliers (their tier I suppliers) were asked to complete a 15 question survey (Exhibit 4). Some questions were relatively simple to answer, such as “Have you measured your corporate greenhouse gas emissions”, whereas others were potentially more difficult to answer, such as “Please report total water use from facilities that produce your product(s) for Walmart for the most recent year measured.” Completion of the survey was voluntary, but when asked what kind of relationship Walmart would have with companies that do not respond, John Fleming, the Chief Merchandising Officer at the time, said “We probably don't have one.”

Step 2 is the creation of a consortium “... of universities to collaborate with suppliers, retailers, non-governmental organizations and government officials... to develop a global database of information on products' lifecycles – from raw materials to disposal”. In other words, Walmart wants to be able to evaluate for each product it sells, the product's total environmental impact, such as how much water it uses, what chemicals does it contain, how much energy does it consume, etc. It plans to make this information public.

In step 3 of the sustainability index, all of the information collected in the previous two steps will be used to construct some simple and transparent method for communicating product sustainability information to consumers to help them make their purchasing choices. The exact form of this communication has yet to be determined and Walmart forecasts that this step could take many years to complete.

In February 2010, Walmart announced one of its most far-reaching goals, which summarizes its efforts to influence its supply chain – by the end of 2015, eliminate 20 million metric tons of emissions from the supply chain. To put this in perspective, this is about the total annual emissions from the state of Maine, or about Walmart’s own annual emissions (e.g., from its stores and trucks). It also equals about 150% of what Walmart forecasted would be its increase in emissions over the next several year (due primarily to sales volume growth) in a “business as usual” scenario (i.e., if nothing were done to change their emissions trajectory). The reduction can come either from an upstream supplier or from downstream use by customers, but to count, it must be directly influenced by Walmart and would not have occurred without Walmart’s participation. Walmart has partnered with the Environmental Defense Fund to help develop the systems that will assess their progress.

Sustainable Agriculture

More than half of Walmart’s revenue comes from groceries, so Walmart clearly has an interest in the production and distribution of food.

Consider salmon. Walmart neither deals directly with fisherman (there are too many of them to do that efficiently) nor does it know anything about fishing. But in 2006 Walmart announced that within the next 3-5 years all of its wild-caught salmon will be purchased from fisheries that have been certified as sustainable by the independent nonprofit Marine Stewardship Council (MSC). Sustainable fishing means that the number of fish taken and the methods used in the catch ensure continuing healthy populations. To Walmart, this means an adequate supply of reasonably priced seafood well into the future.

In October 2010, Walmart announced several sustainable agricultural initiatives that they hope to achieve by 2015: to support farmers and their communities, sell \$1 billion globally in food sourced directly from small, medium and local farmers; invest \$1 billion in the global fresh supply chain to help deliver fresh, quality food with a longer shelf life so that more food is produced with less waste and fewer resources; only source Brazilian beef that does not contribute to Amazon deforestation; and require sustainably sourced palm oil for all Walmart private brand products. (Palm oil production has been associated with tropical deforestation which can eliminate important habitat for species like orangutans.)

Walmart also has taken steps to change the structure of their upstream supply chain. This is most apparent in China, where in 2008 they established their China Direct Farm program – an initiative to directly purchase from farmers (i.e., without intermediaries). Their goal is to include one million farmers in the program and to date they have about 300,000 farmers from 14 provinces. The thinking behind the program is to transfer knowledge of sustainable agriculture to these farmers, reduce the cost to consumers (by increasing the efficiency of distribution), increase returns to farmers, and ensure a fresh and safe food supply. Similar programs have now been established in Mexico and India.

Critics

Walmart has plenty of critics. While people may like their prices, they do not necessarily want a Walmart in their neighborhood, for fear of what it means for local small retailers and traffic congestion, among other concerns. For example, Walmart is still trying to place a store within New York City and only has a single store in Chicago.

Walmart faced the largest gender discrimination lawsuit in history (Dukes vs Walmart) which argued that Walmart discriminated in pay and promotion against millions of female employees. The case reached the

Supreme Court, which did not decide on the merits of the case, but did decide that all of the plaintiffs could not be combined into a single class, thereby preventing the case from moving forward – a major legal victory for Walmart.

Walmart is not unionized and it faces criticism for low pay, inadequate benefits, and poor working conditions. The union-funded Web site walmartwatch.com dismisses Walmart's environmental push as a "high-priced green-washing campaign."

Additional concerns have been raised regarding their pricing practices (alleged to force small retailers out of business) and their international sourcing practices (low wages, child labor, prison labor, loss of American jobs, etc.).

Walmart also faces criticism for its sustainability initiatives. Bob Lurie, who leads the Monitor Group's corporate sustainability practice, accused Walmart in a *Harvard Business Review* article of "regulatory vigilantism" – imposing governmental like rules on its suppliers without an open democratic process and with the real possibility of unintended consequences. Others note that while Walmart is indeed achieving some successes in reducing emissions, its total emissions nevertheless continues to increase due to its increased sales and store count. Furthermore, its big box format forces consumers to drive farther, increasing their emissions.

New partners

Seventh Generation (www.seventhgeneration.com), a 20-year old Vermont based company dedicated to selling "... authentic, safe, and environmentally-responsible products for a healthy home", announced in July 2010 that they will begin to distribute their products through Walmart. Jeffrey Hollender, the founder of the company, recognized that some would question this decision:

"...knowing that a lot of people, some of them among our most loyal long-time customers, will raise an eyebrow (at least!) at this news. Walmart, as we know, has a notoriously checkered corporate past and there aren't many neutral opinions where the company is concerned. Its reputation hasn't been great, often deservedly so, and many, including myself, assumed that Seventh Generation and Walmart would never have any relationship."

But he continues:

"... Walmart is not the same company it was even five years ago. It's a much different organization that has fairly dramatically and with little fanfare transformed itself into a serious sustainability leader ... Walmart's size means we'll reach people and places we couldn't reach before and help countless more families lead safer, healthier lives."

Financial results

November 2011, Walmart reported that 3rd-quarter revenue rose 1.3 percent in U.S. stores opened more than one year (a measure called same-store sales), which was a welcome contrast to the declines recorded in that measure over the previous nine quarters. Nevertheless, revenue and income rose over this period due to international expansion and cost cutting.

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- Walmart Global Sustainability Report: 2010 Progress Update

Exhibit 1: Wal Mart Stores Inc Financials

Scaling Factor : 1000000 USD					
Currency: USD					
5 YR BALANCE SHEET	01/31/10	01/31/09	01/31/08	01/31/07	01/31/06
ASSETS					
Cash And ST Investments	7,907.00	7,275.00	5,569.00	7,373.00	6,414.00
Receivables (Net)	4,144.00	3,905.00	3,654.00	2,840.00	2,662.00
Total Inventories	33,160.00	34,511.00	35,180.00	33,685.00	32,191.00
Annual inventory turns	8.97	8.68	7.96	7.68	7.32
Other Current Assets	3,120.00	3,258.00	3,182.00	2,690.00	2,557.00
Current Assets - Total	48,331.00	48,949.00	47,585.00	46,588.00	43,824.00
Other Assets	19,737.00	18,625.00	18,912.00	16,165.00	15,073.00
Total Assets	170,375.00	163,227.00	163,514.00	151,193.00	138,187.00
LIABILITIES & SHAREHOLDERS'					
Accounts Payable	30,451.00	28,849.00	30,370.00	28,090.00	25,373.00
ST Debt & Current Portion of LT Debt	4,919.00	7,669.00	11,269.00	8,283.00	8,648.00
Income Taxes Payable	1,399.00	701.00	1,016.00	706.00	1,340.00
Other Current Liabilities	12,806.00	12,594.00	10,552.00	9,328.00	13,465.00
Current Liabilities - Total	55,561.00	55,390.00	58,454.00	51,754.00	48,826.00
Long Term Debt	36,401.00	34,549.00	33,402.00	30,735.00	30,171.00
Other Liabilities	2,786.00	2,938.00	0.00	0.00	0.00
Total Liabilities	97,139.00	95,751.00	96,967.00	87,460.00	83,549.00
5 YR INCOME STATEMENT					
Net Sales or Revenues	405,046.00	401,244.00	374,526.00	344,992.00	312,427.00
Cost of Goods Sold	297,500.00	299,419.00	280,198.00	258,693.00	235,674.00
Gross Margin	26.6%	25.4%	25.2%	25.0%	24.6%
Depreciation, Depletion & Amortization	7,157.00	6,739.00	6,317.00	5,459.00	4,717.00
Gross Income	100,389.00	95,086.00	88,011.00	80,840.00	72,036.00
Selling, General & Admin Expenses	78,918.00	76,651.00	70,288.00	64,001.00	56,733.00
Operating Expenses - Total	383,575.00	382,809.00	356,803.00	328,153.00	297,124.00
Operating Income	21,471.00	18,435.00	17,723.00	16,839.00	15,303.00
Non-Operating Interest Income	181.00	284.00	305.00	280.00	248.00
Earnings Before Interest And Taxes (EBIT)	24,131.00	23,082.00	22,301.00	20,777.00	18,778.00
Interest Expense On Debt	2,150.00	2,272.00	2,253.00	1,991.00	1,577.00
Pretax Income	22,066.00	20,898.00	20,198.00	18,968.00	17,358.00
Income Taxes	7,139.00	7,145.00	6,908.00	6,365.00	5,803.00
Minority Interest	513.00	499.00	406.00	425.00	324.00
Equity In Earnings	0.00	0.00	0.00	0.00	0.00
Net Income Before Extra Items/Preferred	14,335.00	13,188.00	12,884.00	12,036.00	11,231.00
Extr Items & Gain(Loss) Sale of Assets	0.00	212.00	-153.00	-752.00	0.00
Net Income Before Preferred Dividends	14,335.00	13,400.00	12,731.00	11,284.00	11,231.00
Preferred Dividend Requirements	0.00	0.00	0.00	0.00	0.00
Net Income Available to Common	14,335.00	13,188.00	12,884.00	12,036.00	11,231.00

Exhibit 2: Walmart 2010 Sustainability Report - Goals and Progress Update

Goal 1: Be supplied 100% by renewable energy

Region	Goal	Progress Update
U.S.	Achieve a 25 percent increase in fleet efficiency in the U.S. by October 2008 (2005 Baseline).	completed
Global	Design and open a viable store prototype that is 25 to 30 percent more efficient and will produce up to 30 percent fewer greenhouse gas (GHG) emissions by 2009 globally (2005 Baseline)	completed
Canada	Overall, new stores in Canada will be 30% more energy efficient (2005 Baseline)	completed
U.S.	Retrofit low- and medium-temperature refrigerated display cases at more than 500 U.S. stores with energysaving light emitting diode (LE D) lighting by 2009 (2005 Baseline).	completed
Japan	Reduce the amount of fuel required to carry one ton of goods one kilometer by 25 percent by 2012 in Japan (2006 Baseline).	completed
China	Walmart China will reduce energy use by up to 30 percent in existing stores and design and open a new store prototype that uses up to 40 percent less energy by 2010 (2005 Baseline).	24% reduced energy consumption expected in existing stores
U.S.	Double fleet efficiency in the U.S. by October 2015 (2005 Baseline)	60% increase in fleet efficiency
Global	Reduce greenhouse gases at our existing store, club and distribution center base around the world by 20 percent by 2012 (2005 Baseline).	5.1% decrease in GHG emissions
China	We will partner with suppliers to improve energy efficiency by 20 percent per unit of production in the top 200 factories in China from which we directly source by 2012 (2007 Baseline).	5% increase in efficiency in 119 factories

Goal 2: Create zero waste

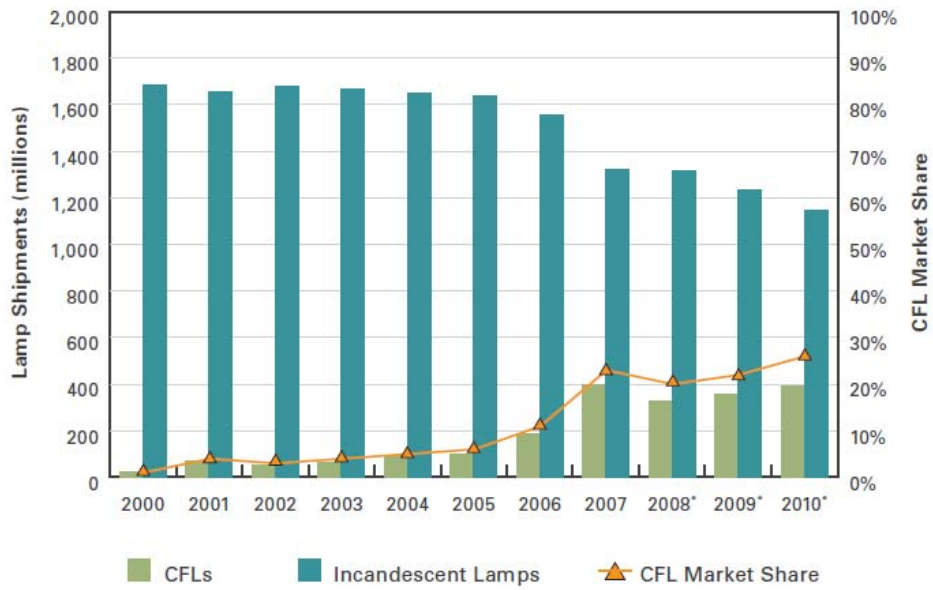
Region	Goal	Progress Update
U.S.	All jewelry packaging in the U.S. will be made more sustainable and we will convert all jewelry pallets and boxes to recycled materials by 2010.	complete
U.S.	Reduce solid waste from U.S. stores and Sam's Club locations by 25 percent by October 2008 (2005 Baseline).	not measurable
U.S.	Eliminate landfill waste from U.S. stores and Sam's Club locations by 2025	64% solid waste reduction
China	Walmart China will aim to cut water use in all of its stores by half by 2010 (2005 Baseline).	Testing new technologies
U.S.	Eliminate PVC from private brand packaging in the U.S. by October 2007.	not achieved
Global	Reduce packaging by 5 percent globally by 2013 (2008 Baseline).	329,000 Items at Walmart and 11,000 Items at Sam's Club Scored
Global	Be packaging neutral globally by 2025.	329,000 Items at Walmart and 11,000 Items at Sam's Club Scored
Global	Reduce the weight of our global plastic shopping bag waste by an average of 33 percent per store by 2013 (January 1, 2007 – December 31, 2007 Baseline).	16.1% reduction in plastic bag waste
Mexico	Walmart de México to reduce water use by 20 percent by 2013 (2008 Baseline).	7.6% reduction in water use

Goal 3: Sell products that sustain people and the environment

Region	Goal	Progress Update
China	Walmart China will reduce the hazardous substances in products sold in its stores by ensuring that half of the electronics on its shelves will be RoHS compliant (2008 Baseline).	complete
U.S.	All personal computers and large electronics at Walmart will be RoHS compliant by December 2007 in the U.S.	complete
U.S.	Sell 100 million compact fluorescent light bulbs (CFLs) at Walmart and Sam's Club locations by the end of 2007 (2006 Baseline).	complete
U.S.	Sell only concentrated liquid detergent in all U.S. stores by May 2008.	complete
U.S.	Work with the Global Aquaculture Alliance (GAA) and Aquaculture Certification Council, Inc. (ACC) to certify that all foreign shrimp suppliers adhere to Best Aquaculture Practices (BA P) standards in the U.S. by 2011	complete
U.S.	By the end of 2009, Walmart U.S. will require that all direct import suppliers along with all suppliers of private label and nonbranded products provide the name and location of every factory they use to make the products Walmart sells	complete
China	Expand the success of Walmart China's Direct Farm Program by engaging as many as one million farmers by 2011.	280,000 farms participating
U.S.	Every air conditioner sold in the U.S. will be Energy Star®-rated by 2010 (2008 Baseline).	75% Energy Star rated
U.S. and Japan	All flat-panel televisions in the U.S. and Japan will be 30 percent more energy efficient by 2010 (2008 Baseline).	TVs in the U.S. are 67% more efficient
Global	Work with suppliers to make the most energy-intensive products in our stores, anywhere in the world, 25 percent more energy efficient by January 2011 (2008 Baseline).	66% of TVs meet this goal
U.S.	Double the sale of products in the U.S. that help make homes more energy efficient by 2011 (2008 Baseline).	20% sales increase
U.S.	Achieve 10 percent traceability of all diamonds, gold and silver in jewelry sold in Walmart U.S. from mines, refineries and manufacturers, meeting ethical sourcing standards and responsible mining criteria by 2010.	15.2% of gold jewelry traceable
U.S.	Purchase all wild-caught fresh and frozen fish for the U.S. from Marine Stewardship Council (MSC)-certified fisheries by 2011.	55% MSC certified
Global	We will work with suppliers to drive customer returns on defective merchandise virtually out of existence (less than 1 percent) by 2012.	1.97% returned
Global	We will require that all direct import suppliers source 95 percent of their production from factories that receive one of our two highest ratings in audits for environmental and social practices by 2012.	93% placement in top-rated factories
Americas	Reduce phosphates in laundry and dish detergents in the Americas region by 70 percent by 2011 (2009 Baseline).	29% detergent phosphate-free in the Central American market
Global	Walmart commits to develop a worldwide sustainable product index.	Assessment and consortium development
Global	Walmart to work with the Sustainability Consortium globally to establish the criteria that will be used to gather information from top-tier suppliers and other retailers for products in at least 20 categories.	4 categories announced
Global	Eliminate 20 million metric tons of greenhouse gas (GHG) emissions from Walmart's global supply chain by the end of 2015 (2010 Baseline).	Efforts launched

Exhibit 3: U.S. Lamp Shipments (from http://www.energystar.gov/ia/products/downloads/CFL_Market_Profile.pdf)

CFL and Incandescent Lamp Shipments by Year



Note: *Projections

Source: D&R International, Ltd., 2009.

Exhibit 4: Walmart's Supplier Sustainability Assessment



1-800-331-0085

www.walmartstores.com

Supplier Sustainability Assessment: 15 Questions for Suppliers

Energy and Climate: Reducing Energy Costs and Greenhouse Gas Emissions

1. Have you measured your corporate greenhouse gas emissions?
2. Have you opted to report your greenhouse gas emissions to the Carbon Disclosure Project (CDP)?
3. What is your total annual greenhouse gas emissions reported in the most recent year measured?
4. Have you set publicly available greenhouse gas reduction targets? If yes, what are those targets?

Material Efficiency: Reducing Waste and Enhancing Quality

1. If measured, please report the total amount of solid waste generated from the facilities that produce your product(s) for Walmart for the most recent year measured.
2. Have you set publicly available solid waste reduction targets? If yes, what are those targets?
3. If measured, please report total water use from facilities that produce your product(s) for Walmart for the most recent year measured.
4. Have you set publicly available water use reduction targets? If yes, what are those targets?

Natural Resources: Producing High Quality, Responsibly Sourced Raw Materials

1. Have you established publicly available sustainability purchasing guidelines for your direct suppliers that address issues such as environmental compliance, employment practices and product/ingredient safety?
2. Have you obtained 3rd party certifications for any of the products that you sell to Walmart?

People and Community: Ensuring Responsible and Ethical Production

1. Do you know the location of 100 percent of the facilities that produce your product(s)?
2. Before beginning a business relationship with a manufacturing facility, do you evaluate the quality of, and capacity for, production?
3. Do you have a process for managing social compliance at the manufacturing level?
4. Do you work with your supply base to resolve issues found during social compliance evaluations and also document specific corrections and improvements?
5. Do you invest in community development activities in the markets you source from and/or operate within?