

## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Badr Alabdan (Abdan)
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	General Motors 2016 170 pages (1 <sup>st</sup> link) <a href="http://www.gmsustainability.com/pdf/downloads/GM_2016_SR.pdf">http://www.gmsustainability.com/pdf/downloads/GM_2016_SR.pdf</a> <a href="https://www.cnbc.com/2014/05/16/the-corporate-culture-behind-the-scenes-at-general-motors.html">https://www.cnbc.com/2014/05/16/the-corporate-culture-behind-the-scenes-at-general-motors.html</a> <a href="http://www.baltimoresun.com/business/bs-bz-frosh-general-motors-20171019-story.html">http://www.baltimoresun.com/business/bs-bz-frosh-general-motors-20171019-story.html</a> <a href="https://www.ups-scs.com/solutions/case_studies/cs_gm.pdf">https://www.ups-scs.com/solutions/case_studies/cs_gm.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Climate change</b>  General Motors is leading in the use of the modern technology to analyze and respond to climate change. The company has undertaken different initiatives meant for enhancing the lives of people. In 2016, the company achieved its 2020 commitment of increasing the generation of clean energy. General Motors has set up over 300 facilities in 59 countries to improve the generation of clean energy. In the same year, General Motors increased the number of landfills-free sites to enhance waste management. The company continues to increase its landfill-free operations with a view to achieving zero-waste objective. Efficient waste management increases the firm's ability to maximize profits as well as achieving its CSR (corporate social responsibility) goals. Another example of the company's initiative toward effective waste management is the recent establishment of water-bottle recycling in Michigan. In 2016, General Motors collected over 8 used bottles and recycled them through collaboration with the local communities. General Motors Corporation has generated more than \$ 1 billion from the recycling of waste products in recent years. The money generated is reinvested in business, which includes the development of new technologies and fuel-efficient vehicles.</p> <p><b>Manufacturing:</b>  General Motors Corporation has constantly adopted new technologies to increase the efficiency of energy use. The company has engaged its employees in carrying out research that aims at increasing energy efficiency in its vehicles. In 2016, the company managed to avoid emission of 228k metric tons of carbon. The company earned Energy Star Awards for environmental leadership from EPA (Environmental Protection Authority). The ability of the company to reduce energy use promotes its profit-generation capacity and enables it to invest in key areas of social responsibility. Additionally, the reduction of energy use increases the demand for the company's products and services due to fuel efficiency and good corporate reputation.</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Inclusion and diversity:</b> General Motors Corporation is a multinational organization. Hence, it hires a diverse labor force across the globe. Employees have varied social needs that must be addressed differently by their employer. Employee diversity takes various dimensions such as religious beliefs, gender,</p>

ethnic background, cultural affiliation, and disability status. The company has adopted policies to ensure that the diverse needs of the employees are adequately met. The company has an efficient management system that adopts new managerial techniques to address the challenges of employee diversity. Diverse workforce has enabled the company to achieve an important milestone in terms of implementing business decisions that have been evaluated through different opinions of the employees.

When it comes to the sustainability of the workforce, General Motors Corporation has invested in both the current and the future employees. From the dealer showroom and boardroom, the company has built a diverse and dynamic team that shares interests in addressing its main challenges. Employee training is another social initiative that General Motors Corporation has adopted. In 2016, the company introduced a new 12-week internship program for experienced technical professionals, particularly women who would want to re-launch their careers after their service in the company. General Motors Corporation is determined to empowering the youths, women, and people with disabilities, who are often perceived as less privileged when it comes to access to training to job opportunities. The company leadership understands that the most efficient way of acquiring effective leaders is through leadership development. Therefore, leaders have developed a leadership development program that seeks to prepare the employees for leadership opportunities in the company and outside. In 2016, almost 3000 employees participated in a training program that General Motors Corporation had developed with a view to educating its employees.

Creation of new employment opportunities: The company has engaged in various activities meant to create opportunities for new employees. For example, the adoption of new technologies to improve the quality of products and service contributes to the ability of the firm to hire new employees. General Motors Corporation has continued to increase the number of employees by establishing new branches in various locations as well as increasing the number of business activities.

Protection of employees' rights: The company has a well-developed code of ethics and organizational strategies that ensure that the rights of the employees are preserved. The management of the company ensures that employees work under protected and favorable working conditions, there is no child labor, no hiring discrimination, and employees are compensated for excess working hours and when injured at workplaces.

Community services: General Motors Corporation engages its employees in the delivery of community services. The company has partnered with various organizations to provide community services with an objective of promoting social welfare. In 2016, over 4,000 employees donated their services to 200 community-based projects in the US. Additionally, over 12,000 employees donated about 110,000 hours to more than 600 community projects with more than 140 non-governmental organizations. The extension of the company's services to the community has promoted the reputation of the company as well as customer support.

<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<p>General Motors Corporation adopts different supply chain management strategies to improve the efficiency of service delivery. The company operates in a highly competitive industry. Therefore, it has continuously sought to enhance its service delivery. The company engineers and managers collaborate in developing effective solutions to most of its logistics problems. General Motors Corporation develops an extensive supply chain network to ensure that all its global customers are efficiently served with its products and services. The company has about 9,000 dealers in the US and Canada and it has continued to improve the flexibility, responsiveness, and geographical reach of its distribution network. UPS Supply Chain Solutions were adopted to help in the simplification of the process of moving products and services along its supply chain. UPS Supply Chain Solutions offer General Motors Corporation material recovery solutions that contribute to the overall high performance of the supply chain network of the company. The company has an extensive distribution network that spans over 21,000 businesses across the world. The supply chain network is built on strong and transparent relationships among all dealers along the supply chain network.</p>
<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>Stakeholders have expressed their concerns and impressions about the company through blog posts, social media, and personal interviews. Most of the individuals who have expressed their impressions have interacted with the firm in different ways. Some of the expressions that have been made about the company relate to the distresses that have accompanied the use of the company's products. However, the company has not provided information relating to these allegations in its sustainability report to avoid damaging its public image. For example, the new CEO, Mary Barra, testified before the Congress to give an account of a flaw in design that led to the deaths of more than 10 people. The members of the committee were attempting to uncover the flaw in the company, which could have led to the purchase of some parts, or materials that did not meet the standards. "Why in the world would a company with the stellar reputation of General Motors Corporation purchase a part that did not meet its own specifications?" This question was asked to the CEO during the interview. Another claim that has been made relates to the suitability of the products. An article posted on The Baltimore Sun describes how the attorneys of the company in various states resolved claims that the company had concealed ignition-switch defects. It was argued that the company's defective ignition switches were putting its customers at risk. Some of the stakeholders claimed that the company delayed notifying its customers after it identified the defect, thereby jeopardizing their safety. However, much has been said about the good corporate culture that GM has adopted.</p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>After analyzing different views regarding the sustainability of the company in regards to different aspects such as customer service, rights of the employees, and environmental sustainability, General Motors Corporation has achieved a significant milestone in social responsibility. Some customers have not been satisfied with some of the services that General Motors Corporation due to negative experiences with its services. However, such reactions are expected because customers do not expect to identify any defect in the products they</p>

purchase. The company has strived to improve its corporate social responsibility strategies despite a few cases of defective parts. The effort that General Motors Corporation has devoted towards environmental protection indicates its capacity to remain as the global leader in social responsibilities and environmental protection.

Image 1

**LANDFILL-FREE SITES**



Image 2

**ENERGY INTENSITY**  
(MWh/vehicle)

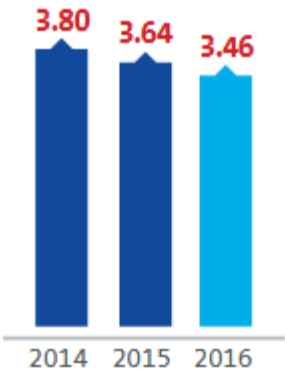
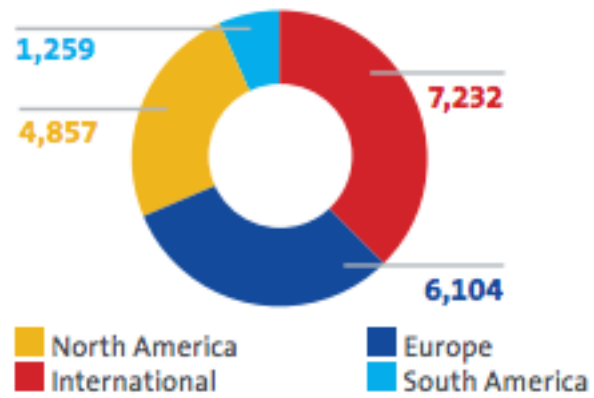


Image 3

## Distribution

### AUTHORIZED DEALERSHIPS BY REGION



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Miguel Aurich
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	The Boeing Company 2017 <a href="http://www.boeing.com/resources/boeingdotcom/principles/environment/pdf/2017_environment_report.pdf">http://www.boeing.com/resources/boeingdotcom/principles/environment/pdf/2017_environment_report.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>Air Quality Emissions - Aircraft design is primary initiative with new aircraft design consisting of lighter composite materials paired with the use of bio-fuels and highly efficient, clean engines. Fuel Dashboard system involves collaboration between Boeing and the airline to maximize the efficiency of fuel requirement planning.</p> <p>Energy Consumption - Use of solar and wind-powered energy systems to reduce manufacturing facility emissions and energy use. While aircraft production has increased, energy consumption has decreased by 5.9%.</p> <p>Water Conservation - switching to filtered water stations instead of bottled water. Some sites are irrigating with the use of re-purposed water saving as much as 25 million gallons of water at a California site.</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>Supplier - Conflict over Raw Materials: Boeing insists that its suppliers comply with set regulations to protect communities from harsh and unsafe conditions in mining raw resources like tin, tantalum, tungsten, and gold as these are widely used in the production of aircraft systems.</p> <p>Supplier - Human Rights Concerns: Human trafficking and the use of child labor is a concern and Boeing insists its suppliers comply with regulations in order to do business with Boeing.</p>
<b>Supply Chain Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>Hazardous Waste Reduction - reducing the amount of paint used on parts and recycling oils used in equipment.</p> <p>Waste Reduction - Use of reusable containers and elimination of containers altogether for some components received by suppliers. This eliminates shipping costs and waste largely.</p>
<b>Other Voices</b> <i>[What do others have to say about the company? Corroborate? Contradict?]</i>	<p>Overall, the consensus is that Boeing has initiatives in place to effectively address all of the environmental issues that are currently posing a risk to the environment and affected communities. The Aviation Today reference even goes as far as sharing information that was not found elsewhere stating that the ecoDemonstrator, the Boeing aircraft used for flight test with biofuels was designed highly recyclable to reduce waste at the end of its life-cycle.</p> <p>Reference: <a href="https://www.trucost.com/trucost-blog/boeing-environmental-performance-pay-off/">https://www.trucost.com/trucost-blog/boeing-environmental-performance-pay-off/</a>  <a href="http://www.aviationtoday.com/2017/09/21/biofuels-3d-printing-aviation-going-green/">http://www.aviationtoday.com/2017/09/21/biofuels-3d-printing-aviation-going-green/</a></p>
<b>Personal Reaction</b> <i>[New perspectives? Any surprises? To other voices?]</i>	There are a few of these environmental concerns that I knew were an issue and are normally shared on the news as awareness has increased in regards to climate change and air quality. I wasn't oriented as to the diversity of Boeing's initiatives and accomplishments prior to reading this. Compiling this document

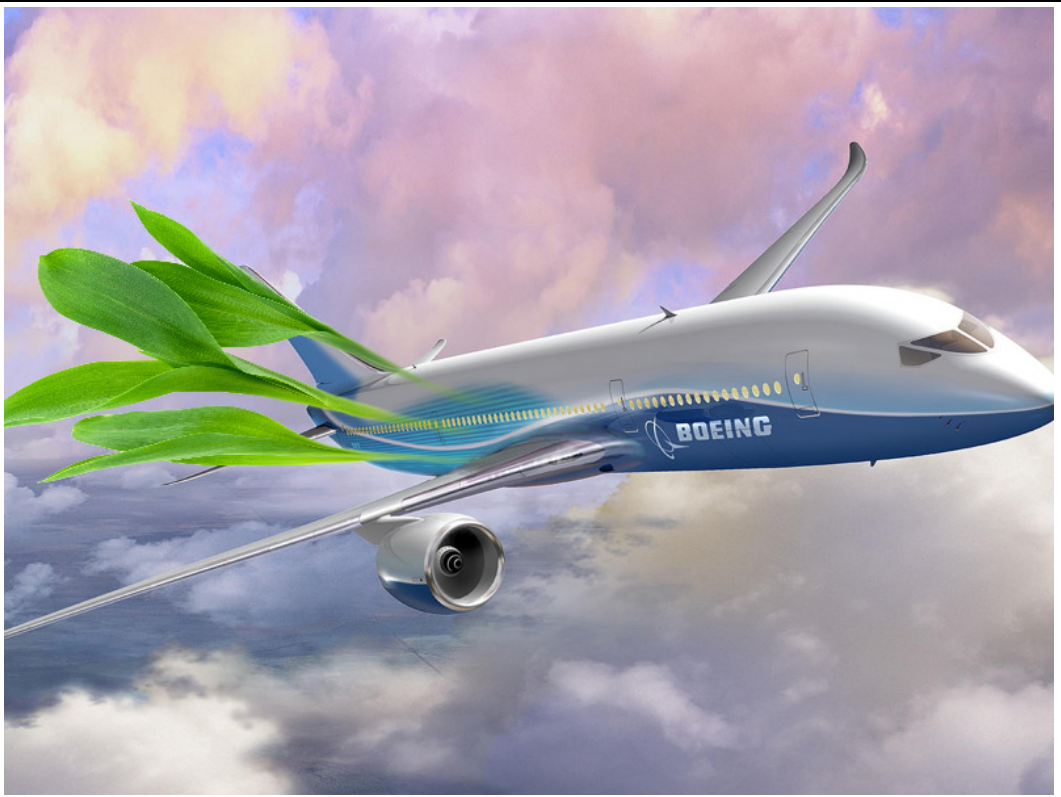
	<p>helps depict how much is invested in Operational Sustainability and mitigation of environmental impact.</p> <p>I was surprised that the engagement in improving efficiency and mitigating environmental concerns has even broken barriers where Boeing and its primary competitor, Airbus, have collaborated to improve air traffic efficiency.</p> <p>I think with the intense Airbus competition and the significant cost for a company the size of Boeing, it is extremely important to stay ahead of the game with these initiatives and exercise cost avoidance.</p> <p>Reference: <a href="http://www.airbus.com/newsroom/press-releases/en/2008/04/boeing-and-airbus-join-forces-to-improve-aviation-apos-s-environmental-performance.html">http://www.airbus.com/newsroom/press-releases/en/2008/04/boeing-and-airbus-join-forces-to-improve-aviation-apos-s-environmental-performance.html</a></p>																
Image 1																	
Image 2	<table><tr><td>FROM 2007-2012, WE INCREASED</td><td colspan="3">WHILE AT THE SAME TIME, WE REDUCED...</td></tr><tr><td>AIRCRAFT DELIVERIES by</td><td>CARBON DIOXIDE emissions by</td><td>HAZARDOUS WASTE by</td><td>WATER USE from production by</td></tr><tr><td>50%</td><td>9%</td><td>18%</td><td>2%</td></tr><tr><td>&gt;</td><td>&gt;</td><td>&gt;</td><td>&gt;</td></tr></table>	FROM 2007-2012, WE INCREASED	WHILE AT THE SAME TIME, WE REDUCED...			AIRCRAFT DELIVERIES by	CARBON DIOXIDE emissions by	HAZARDOUS WASTE by	WATER USE from production by	50%	9%	18%	2%	>	>	>	>
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Image 3  
(optional)





## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Hua (Anna) Bai
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Google 2017 Progress Update (The first link) 55 pages <a href="https://environment.google/">https://environment.google/</a> <a href="https://www.google.com/about/responsible-manufacturing.html">https://www.google.com/about/responsible-manufacturing.html</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Climate change:</b></p> <ol style="list-style-type: none"> <li>Carbon footprint: In 2016, Google's gross GHG emissions were 2.9 million metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e), but because of its renewable energy and carbon offset programs, Google's net operational carbon emissions were zero. Over the past five years, Google's carbon intensity per revenue and carbon intensity per full-time equivalent employee both decreased by 55%, and its carbon intensity for electricity used at our data centers dropped by 59%. By November, Google had signed a cumulative total of 20 PPAs for more than 2.6 GW of renewable energy. Google's landfill gas project has eliminated half a million metric tons of carbon dioxide equivalent, generating more than half a million carbon offsets.</li> </ol> <p><b>Resources:</b></p> <ol style="list-style-type: none"> <li>Landfill &amp; waste: Six of our operating data centers have achieved 100% landfill diversion, and one of these has also reached Zero Waste to Landfill. In 2016, Google diverted 86% of waste from global data center operations away from landfills. In 2016, Google avoided more than 700,000 kilograms (1.5 million pounds) of food waste in cafés globally by tracking pre-consumer food waste and using this data to inform future production levels.</li> <li>Water: From 2013 to 2016, Google reduced potable liters of water used per Googler by 40% at our Bay Area headquarters.</li> <li>Reuse &amp; recycling: In 2016, 36% of the servers Google deployed were remanufactured machines. In 2016, 22% of the components we used for machine upgrades in our data centers were refurbished inventory.</li> <li>Energy: On average, a Google data center uses 50% less energy than a typical data center. Google is the world's largest corporate purchaser of renewable energy. We've signed 20 agreements to purchase a total of 2.6 GW of renewable energy—generating emissions savings equivalent to taking more than 1.2 million cars off the road. Since 2010, we've committed to invest nearly \$2.5 billion in renewable energy projects with a total combined capacity of 3.7 GW.</li> </ol>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Responsible Supply Chain Program:</b> involves Google employees and workers employed by over 400 Google's suppliers in more than 20 countries.</p> <ol style="list-style-type: none"> <li><b>Supplier Code of Conduct</b> Google is committed to treating them with dignity and respect as understood by the international community. In 2016, Google began supporting Pact's work to reduce child mining in the tin and cobalt industries in the DRC by addressing root causes and providing other options for families. Google asked suppliers to maintain safe and healthy workplaces and to implement OHSAS 18001 or an equivalent management system to identify and resolve related issues.</li> <li><b>Supplier assessments</b></li> </ol>

	<p>Google gauge to how close suppliers are to meeting its standards, identify potential risks, and address concerns.</p> <p>Google conducted 130 audits involving 94 suppliers in 12 countries, audited factories representing 36 different types of suppliers, and interviewed approximately 3,500 workers face-to-face, and 890 workers participated in tablet-based surveys. Google created a Sustainability Worker Survey Initiative to promote even greater transparency. Google Completed 70% of Corrective Action Plans (CAPs). 30% are on track for completion.</p> <p><b>3. Capability building</b></p> <p>Google offered programs that enable our suppliers to develop stronger social and environmental capabilities.</p> <p>As part of our broad-based efforts to combat modern slavery, we joined with several other information and communications technology companies in 2016 to co-host six anti-forced-labor workshops in Malaysia, Singapore, and Taiwan.</p>
<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>In 2017 corporate reputation study from Fortune, Google landed in the fifth spot with a score of 78.22 (Fortune).</p> <p>The Reputation Institute put Google at the top of its Global Corporate Social Responsibility Rep Trak rankings in 2015. (U.S.News) With a score of 75.4, Google is about 2 points ahead of the runner-up BMW. To put that in understandable terms, that gap between Google and BMW is the same size as the gap between BMW and ninth ranked Rolls-Royce Aerospace. Reasons that Google was put at the top are that the company has been carbon neutral since 2007 and has implemented numerous environmentally friendly initiatives, including <a href="#">Google Green</a>. Also, the company was also one of the first tech employers to release workplace diversity statistics and has dedicated itself to expanding Internet access, according to the Reputation Institute.</p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>Overall, Google is doing what an environmentally-conscious company should do in terms of taking initiatives to address environmental and social issues responsibly and is doing a great job at it in many aspects. To make Google a true environmental leader, however, requires the company to do even better at pushing on its suppliers and manufacturers to do the right things.</p> <p>According to some third-party assessment, 32% of Google's suppliers have labor problems. There are 14.8% suppliers have excessive working hours. Some suppliers have not met Google's own Supplier Code of Conduct expectation that workers work no more than what is allowed by local laws or 60 hours per week, whichever is lower, and receive at least one day off for each six-day worked. Also, 34% suppliers showed health and safety problem. 11.1% inadequate emergency response. Inadequate practices were observed at some supplier facilities, such as blocked exit routes, unclear exit signs, no evacuation drills, and incomplete inspection of fire alarms and suppression systems. It was also identified that suppliers are not adequately controlling work hazards through engineering design or operation and maintenance procedures.</p> <p>With the assessments above, I think it is both important and difficult to apply company's Code of Conduct, for suppliers, especially when you are a large cooperation who works with tons of suppliers within US and oversea. And</p>

Google needs to continue its investments in leading all its suppliers into the right direction.

In addition to that, with the recent additions to Google’s own device hardware product line such as Google Home speakers, Google has taken on more responsibilities on not only consuming from environment-friendly suppliers, but also being an environment-friendly manufacture itself. It needs to find the right balance between contributing to consumerism and world’s economy by producing updated devices frequently and dealing with the long-term environmental consequences of this constant manufacturing process.

One last point is that since Google has acquire Nest in 2014, making automated and smart solutions for saving energies for homes and businesses via Nest devices and eco-system had become part of Google’s own mission statement, which I think consequently helps with the environment in long term and counts into the Google’s total effort towards a greener and more environment-friendly world.

Image 1  
(optional)

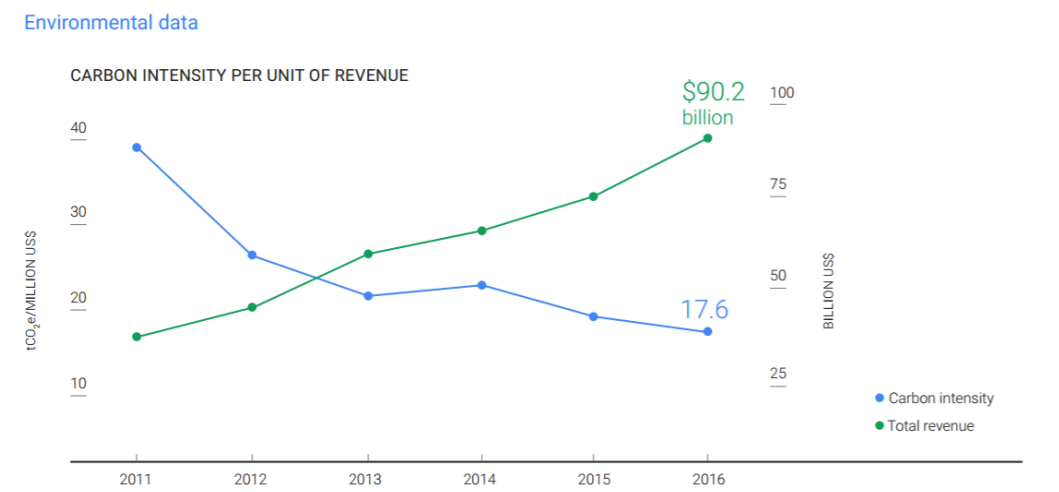
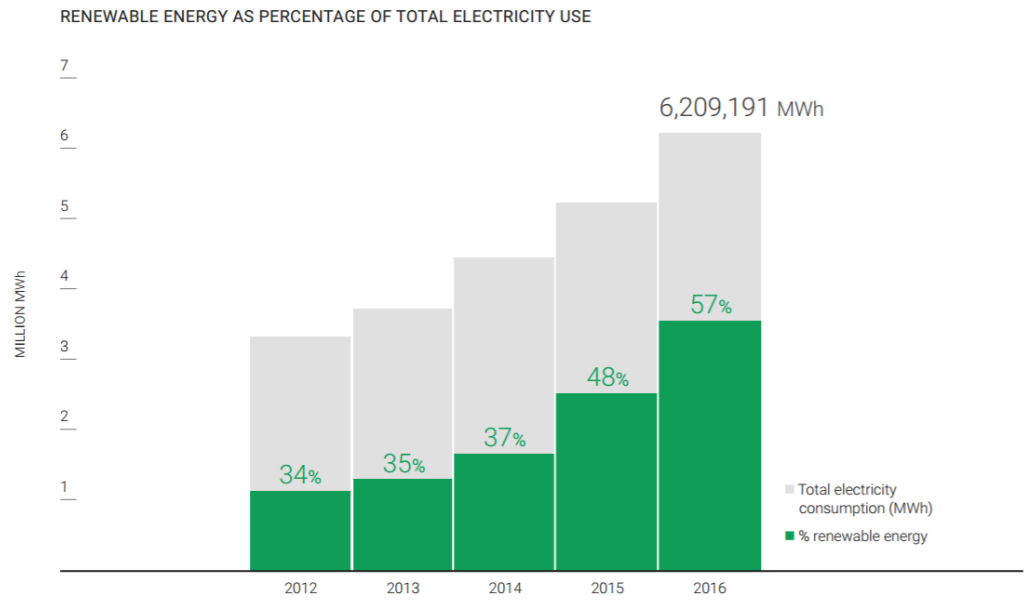


Image 2  
(optional)



GOOGLE ENVIRONMENTAL REPORT: 2017 progress update APPENDIX

48

Image 3  
(optional)



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Patrick Chang
<b>Company:</b>	Nike
<b>Report Year:</b>	2016
<b>Length:</b>	115
<b>Link:</b>	<a href="http://www.sustainablebrands.com/digital_learning/csr_report/next_economy/nike_inc_fy1415_sustainable_business_report">http://www.sustainablebrands.com/digital_learning/csr_report/next_economy/nike_inc_fy1415_sustainable_business_report</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>Flyknit Technology produces 60% less waste than traditional cut-and-sew methods. From 2012 to 2016, there has been a reduction of almost 3.5 million pounds of waste.</p> <p>Beginning in 2010, Nike has utilized 3 million plastic bottles by repurposing them to make some performance products such as sports jerseys.</p> <p>ColorDry Technology is used to dye Nike products and does so without using water. 20 million liters of water have been saved using this dying method from 2010-2016.</p> <p>While these initiatives have reduced the environmental footprint of Nike, they have also reduced operating costs. The new processes being utilized often require less human labor and resources.</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>Nike is focused on increasing the quality of life of their employees. They regularly monitor energy levels, levels of employees feeling appreciated, levels of employees feeling supported, as well as productivity and quality levels. By doing so, Nike provides quality employment for members of their community and enriches the lives of those capable and willing to work with/for Nike. They are also committed to providing generous compensation for their employees.</p> <p>As a company, Nike aims to be as transparent as possible. This of course benefits their stock holders and stake holders. Stock holders can be more confident in the actions that Nike is taking as a company as well as where their investment is going while stakeholders can be assured that Nike is not sacrificing ethical values for profit.</p> <p>Nike prides itself on being a diverse and inclusive workforce. They function all over the world and employ people internationally. The percentage of global employees has grown substantially every year from 2011-2015, jumping from 37,515 to 56,587. Nike enlists a Diversity and Inclusion team within their Human Resources department.</p>

<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<p>Nike's Express Lane initiative was developed to increase the speed that Nike is able to deliver their goods to consumers, cutting down on operating costs and increasing overall efficiency. This initiative will allow Nike to provide its products direct-to-consumer and can make adjustments to their products rapidly in order to meet to demand.</p> <p>Supply chains are typically responsible for the vast majority of greenhouse gas emissions. Nike has expanded its European Logistics Campus in Belgium with the purpose of implementing 100% renewable energy and 95% onsite waste while optimizing transportation routes to reduce emissions by 30%.</p> <p>Nike has reduced the amount of suppliers they have to streamline their operations as well as reduce their operations' environmental impact.</p>
<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>While Nike has set a goal of reducing carbon emissions to 0% by 2025, this may have no impact on their overall carbon footprint. The reason for this is that the majority of their carbon emissions are from associates that Nike does not own or operate. Thus, the overall carbon footprint from Nike's operations will remain largely unaffected.</p> <p>Activists are convinced that over the past twenty years the gradual recognition of workers' rights worldwide has forced Nike to make changes to their policies. These activists are optimistic about the changes Nike has to the quality of life of their international work force.</p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>Nike has been a topic of scrutiny in the past. Accusations of child labor and the abuse of workers have been popularized and documented. However, I believe Nike is genuinely attempting to buy-in to this trend of enhanced ethical practices. I'm sure they are incentivized to do so but for the time being I think people can be satisfied with their progress.</p>

Image 1

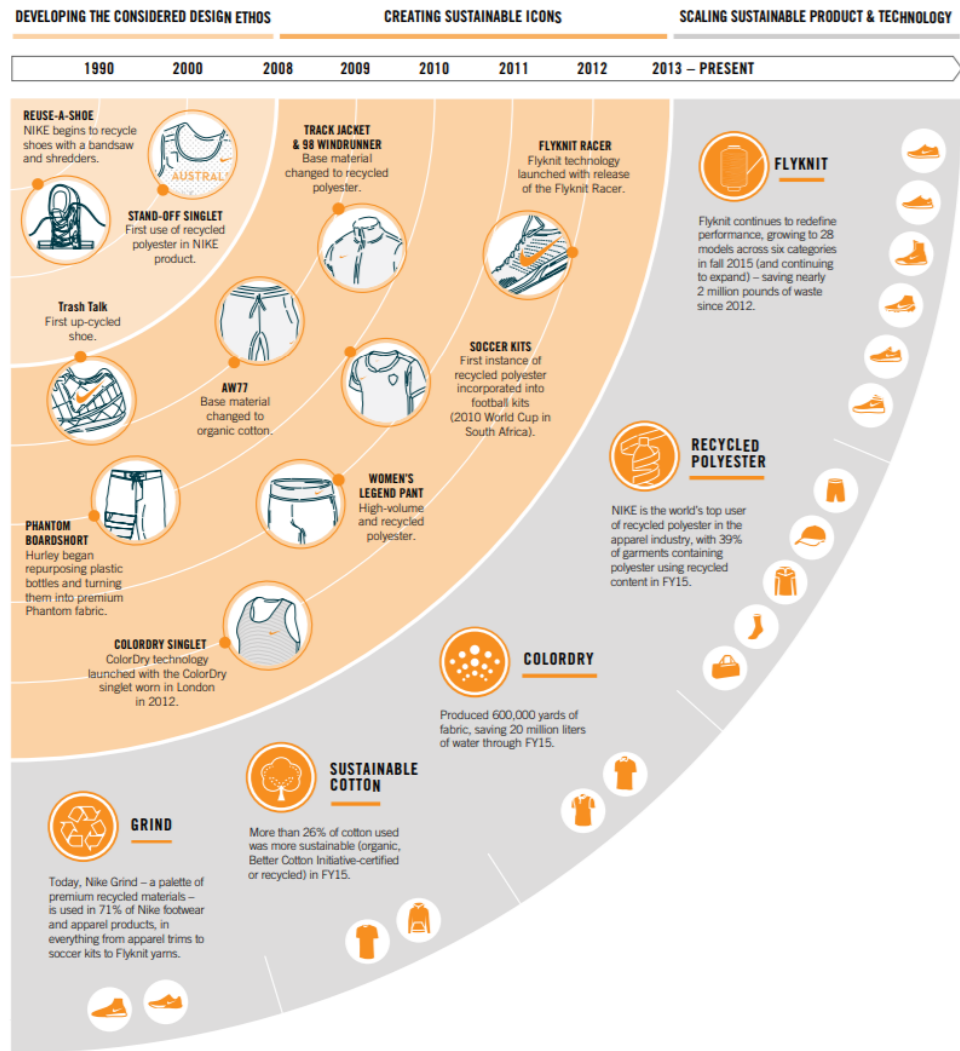




Image 2

**SUSTAINABILITY AND BUSINESS GROWTH ARE COMPLEMENTARY**

We have reduced absolute CO<sub>2</sub>e emissions while simultaneously increasing revenues since FY00.

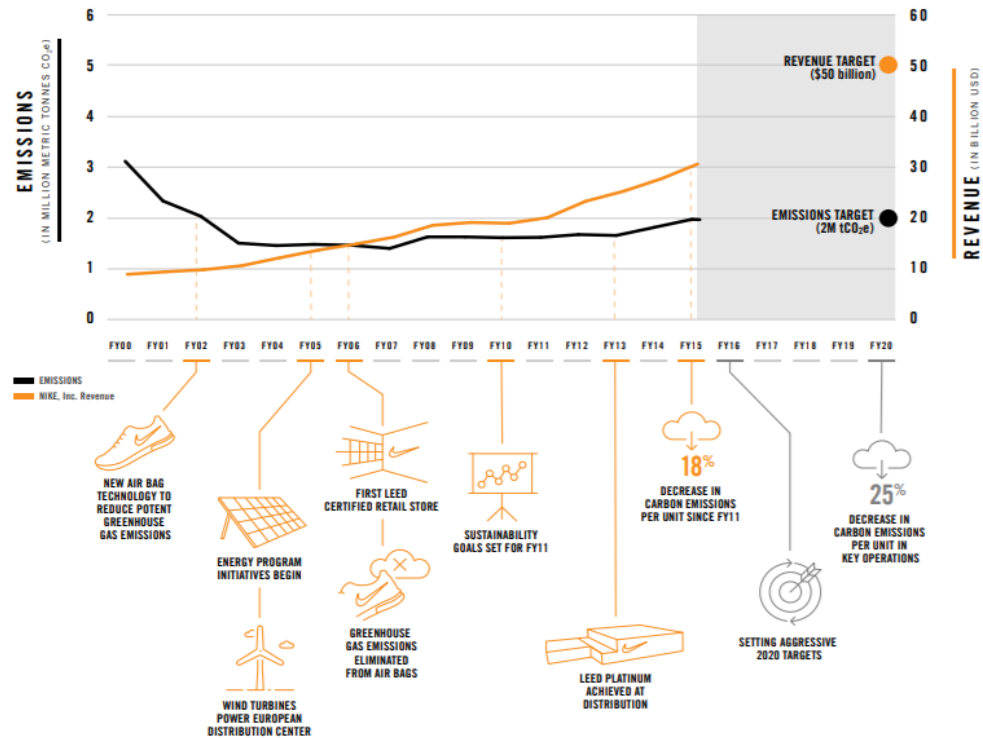
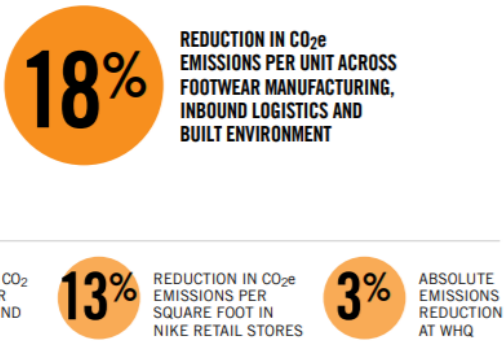


Image 3 (optional)

**FY15 PERFORMANCE**

We drove progress through reductions in energy and related emissions in contracted footwear manufacturing and inbound logistics during a period of exceptional growth. For context, in FY15 we shipped more than 1 billion units through our supply chain, and our revenue increased 52% from FY11 through FY15. That growth, as a backdrop to continued efforts and achievements in carbon reductions, shows we are on our way to minimizing our environmental footprint.



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Jeremy Chow
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Patagonia 2018, Reporting 2017 Data 116 Pages <a href="https://issuu.com/thecleanestline/docs/patagonia-enviro-initiatives-2017">https://issuu.com/thecleanestline/docs/patagonia-enviro-initiatives-2017</a> <a href="https://www.youtube.com/watch?v=4HgSRKiaj7s">https://www.youtube.com/watch?v=4HgSRKiaj7s</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Carbon Footprint of Products</b></p> <ol style="list-style-type: none"> <li>1. 2017 introduced Clean Color Collection-15 styles of clothing dyed with 96% renewable resources derived from food waste, dried beetles, and silkworm poop.</li> <li>2. Supporting environmental causes: \$89 million has been donated to communities around the globe designed to create positive change for the planet</li> <li>3. Worn wear program: Making sure all products are built to last by focusing on repairing products. This is pushed to the supply chain as each global customer is encouraged to participate. Partnered with "Post-Landfill Action Network"-which holds sustainability fairs and advertises Patagonia's Worn Wear program.</li> </ol> <p><b>Activism</b></p> <ol style="list-style-type: none"> <li>1. Patagonia provisions-Patagonia's food company pushes for Regenerative organic agricultural practices which don't require chemical fertilizers, pesticides, and use less water. Partners with farmers, ranchers, and fisherman to push these best practices.</li> <li>2. Food &amp; Fiber Council-reviews grants specifically related to regenerative organic agriculture. Invested \$500,000 in the past year.</li> <li>3. Regenerative Organic Alliance-Helps ensure best practices and push for companies to get the Regenerative Organic Certification and input this in the supply chain of farmers. CEO says, "Regenerative agriculture could be the most environmental solution in the world"</li> </ol> <p><b>Research</b></p> <ol style="list-style-type: none"> <li>1. Research alternatives to Perfluorochemical (PFC) which helps create water repellants in jackets. This currently has byproducts that are toxic.</li> <li>2. Invest in companies such as Beyond Surface technologies and HelQ to help research this.</li> <li>3. Switched to using C6 which has less toxins, but looking for more permanent solution</li> </ol>
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<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<p><b>Measuring the Company through Tests</b></p> <ol style="list-style-type: none"> <li>1. Completed the official B Impact Assessment, which validates company as a B Corp (for profit companies certified to meet rigorous standards of social and environmental performance, accountability, transparency). Patagonia scored a 152 on the test, a 31% increase from their prior assessment. The passing score is 80</li> <li>2. Higgs Index: measures the environmental and social/labor impacts of corporate operations. Engaged with the Sustainable Apparel Coalition (SAC) which measures the environmental impact of companies, which is the first step to becoming certified.</li> </ol> <p><b>Partnering with Companies to Create more change</b></p> <ol style="list-style-type: none"> <li>1. South Korea Sustainability Summit</li> <li>2. Teaching MBA classes at University of California Berkeley</li> <li>3. Supporting other B Corp Companies</li> <li>4. Developed Chemical and Environmental Impacts Program (CEIP) to work more closely with supply chain partners to manage chemicals, waste, water use, and energy use. In Feb 2017, managers conducted chemical management trainings in Asia.</li> <li>5. Fire Safety Initiative-Audited fire conditions of every factory. Trained factory on fire safety.</li> <li>6. Donated \$30,000 in supply chain grants to nonprofits trying to protect environment in areas that Patagonia makes its products.</li> </ol> <p><b>Reusable Supply Chain</b></p> <ol style="list-style-type: none"> <li>1. Insulation of jackets was replaced with 55% recycled material, to harm the environment less.</li> <li>2. Jackets use fossil fuels to make, especially the shells. Patagonia is trying to make these shells more sustainable, by making them last forever.</li> <li>3. All Patagonia Down Jackets can be traced down to where it was produced. In 2017, the virgin down jacket is certified to be Global Traceable Down Standard, an advanced certification.</li> </ol>

<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>-Overall, Patagonia gets a very positive reaction in terms of helping the environment. But this does not come without some trials and tribulations.          -In 2011, the company learned that some of its suppliers were implementing poor working conditions their employees, equated to modern day slavery.          -Patagonia has acknowledged these faults and started to turn them around, but people have started to question if the idea of slavery in the supply chain is too big of a problem for a medium sized company like Patagonia to tackle.          -Patagonia also produces some of its clothes with toxic chemicals, so they do not necessarily have a 0% carbon footprint, which has allowed critics to emerge.          Other problems Patagonia had to address:          -Farms supplying feathers for jackets were force feeding geese          -Abuse of sheep in South American ranches that sold wool to Patagonia</p> <p>Patagonia has been able to fight these problems by being transparent and socially responsible. But with continued growth, it continues to be hard to stick to their reputation that they have built on a consistent basis.</p> <p><a href="https://cspace.com/blog/patagonia-dont-buy-this-jacket-campaign/">https://cspace.com/blog/patagonia-dont-buy-this-jacket-campaign/</a></p> <p><a href="https://www.theguardian.com/sustainable-business/2016/jun/14/sustainable-apparel-coalition-factory-environment-water-textiles">https://www.theguardian.com/sustainable-business/2016/jun/14/sustainable-apparel-coalition-factory-environment-water-textiles</a></p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>-Certain actions are always going to look ethical in one person's eyes and unethical in someone else's eyes.          -Patagonia has done a great job in creating a reputation and then continually building on that reputation.          -When things go wrong they are willing to admit they are wrong and try to fix them. But with the mass scale they are functioning at, they certainly cannot be perfect.          -The video presentation was a unique way to show Patagonia's yearly impact.          -There is a thought that the premium price of products is leaving out a customer base that could benefit from the products          -Is growth bad for the business?          -I was surprised at how many different industries Patagonia is in, from book writing to clothing making, to advocating to teaching.          -It was intriguing that it was hard to find a lot of critics of Patagonia. There will always be critics, but there were a lot less than I would have thought, especially with the size of the business.</p>

Image 1

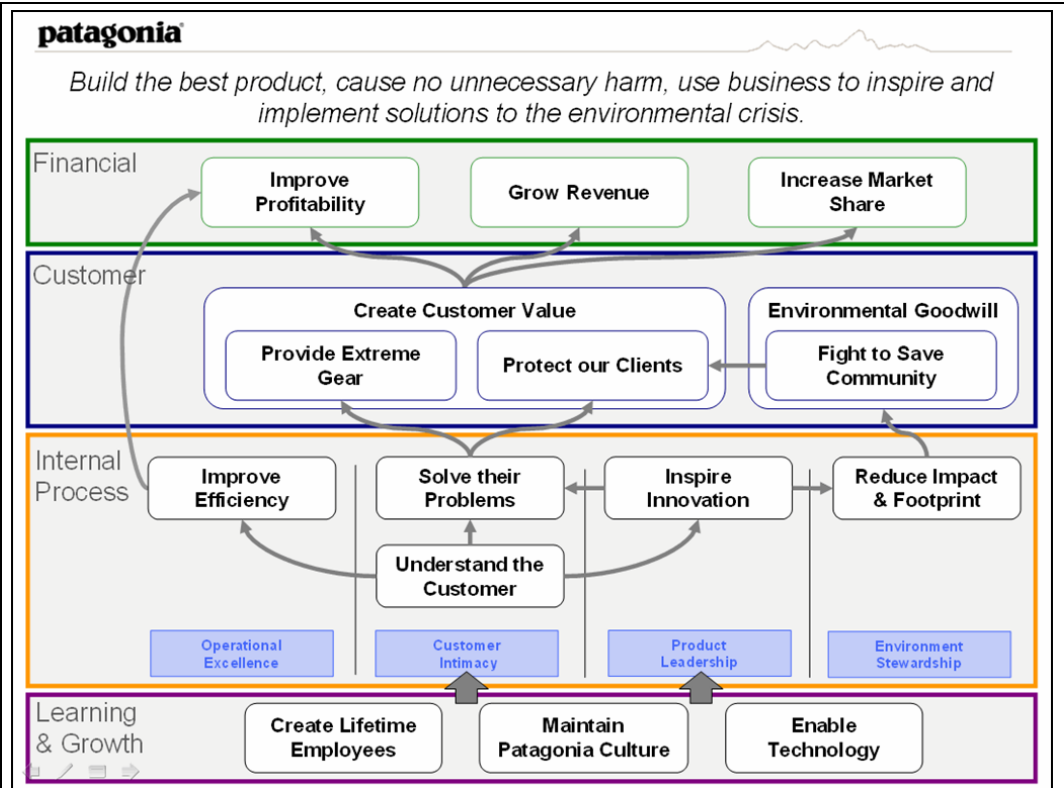
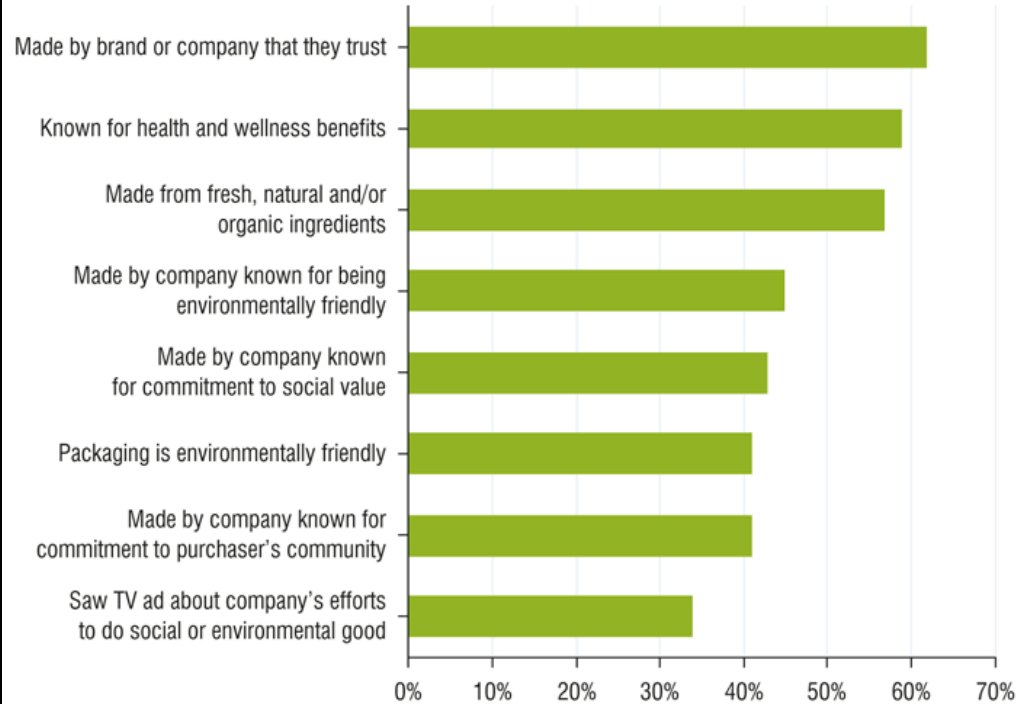


Image 2

% of global consumers who say various factors influence their purchases. Patagonia is trying to target these areas through their clothing



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Jeremy Chow
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Patagonia 2018, Reporting 2017 Data 116 Pages <a href="https://issuu.com/thecleanestline/docs/patagonia-enviro-initiatives-2017">https://issuu.com/thecleanestline/docs/patagonia-enviro-initiatives-2017</a> <a href="https://www.youtube.com/watch?v=4HgSRKiaj7s">https://www.youtube.com/watch?v=4HgSRKiaj7s</a>
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<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<ul style="list-style-type: none"> <li>-Overall, Patagonia gets a very positive reaction in terms of helping the environment. But this does not come without some trials and tribulations.</li> <li>-In 2011, the company learned that some of its suppliers were implementing poor working conditions their employees, equated to modern day slavery.</li> <li>-Patagonia has acknowledged these faults and started to turn them around, but people have started to question if the idea of slavery in the supply chain is too big of a problem for a medium sized company like Patagonia to tackle.</li> <li>-Patagonia also produces some of its clothes with toxic chemicals, so they do not necessarily have a 0% carbon footprint, which has allowed critics to emerge.</li> </ul> <p>Other problems Patagonia had to address:</p> <ul style="list-style-type: none"> <li>-Farms supplying feathers for jackets were force feeding geese</li> <li>-Abuse of sheep in South American ranches that sold wool to Patagonia</li> </ul> <p>Patagonia has been able to fight these problems by being transparent and socially responsible. But with continued growth, it continues to be hard to stick to their reputation that they have built on a consistent basis.</p> <p><a href="https://cspace.com/blog/patagonia-dont-buy-this-jacket-campaign/">https://cspace.com/blog/patagonia-dont-buy-this-jacket-campaign/</a></p> <p><a href="https://www.theguardian.com/sustainable-business/2016/jun/14/sustainable-apparel-coalition-factory-environment-water-textiles">https://www.theguardian.com/sustainable-business/2016/jun/14/sustainable-apparel-coalition-factory-environment-water-textiles</a></p>
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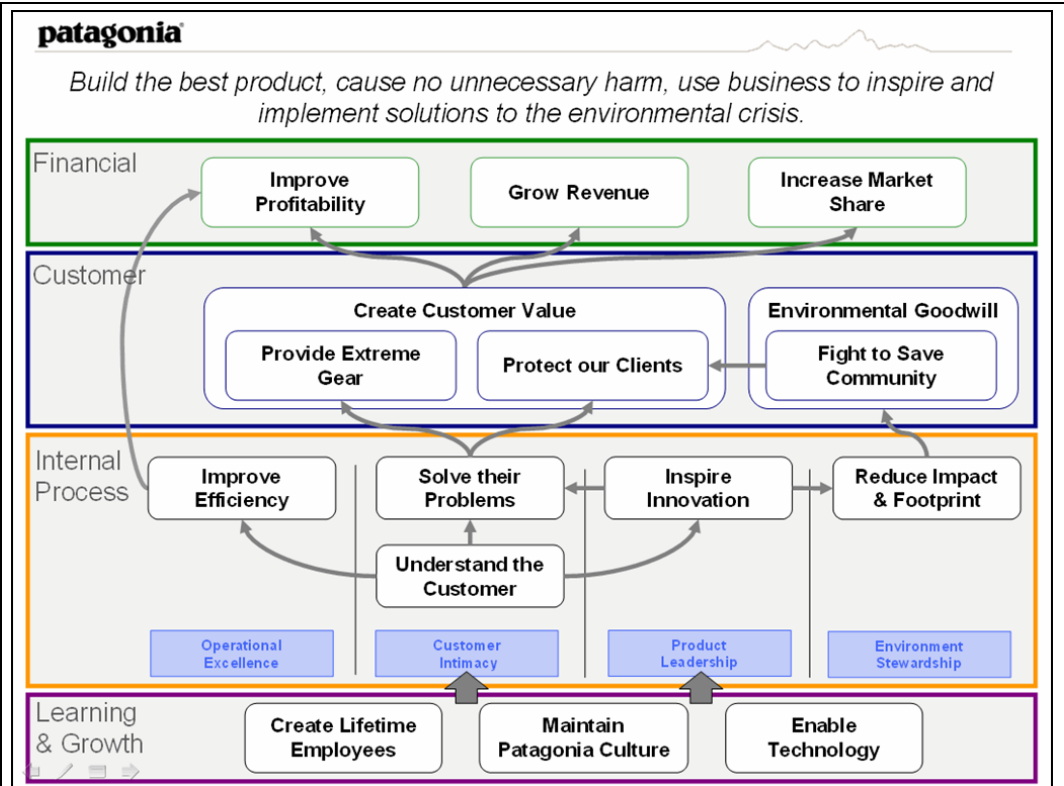
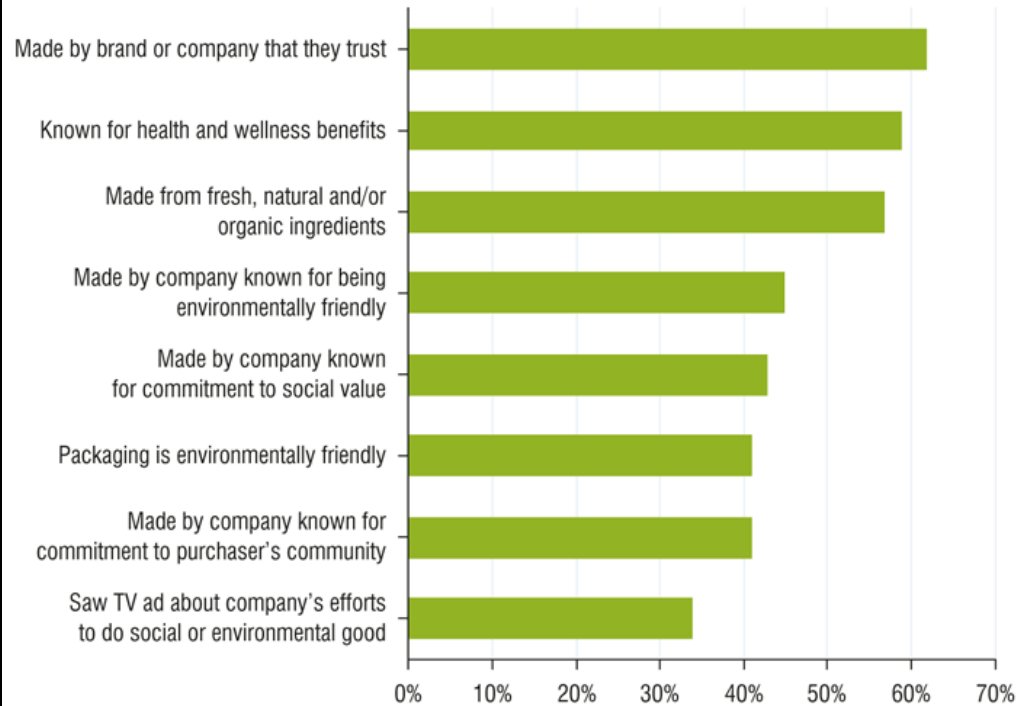


Image 2

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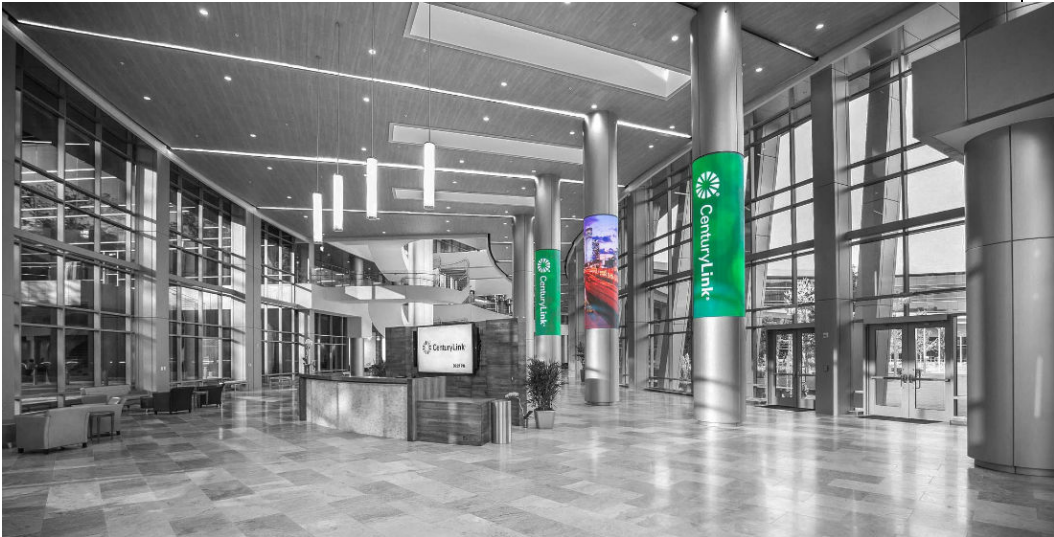


## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Jordan Clarke
<b>Company:</b> CenturyLink <b>Report Year:</b> 2016 <b>Length:</b> 23 pages <b>Link:</b> <a href="http://www.centurylink.com/asset/aboutus/downloads/community/Corporate-Social-Responsibility-Report.pdf">http://www.centurylink.com/asset/aboutus/downloads/community/Corporate-Social-Responsibility-Report.pdf</a>	
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b><u>Technology Transformation:</u></b> Emphasis on green IT which includes reducing energy consumption and carbon footprint. The company is replacing legacy servers with those that are more energy efficient which lowers costs both to the customer but also to the organization.</p> <p><b><u>Datacenter Efficiency:</u></b> Leveraging hydro-electric power to run datacenters in Moses Lake as well as Fuel Cells powering datacenters in Irvine. Renewable sources lower costs to customer and save on energy costs for CTL. Moses Lake datacenter runs on 85% renewable energy, significantly impacting costs to the customer.</p> <p><b><u>Technology Center of Excellence:</u></b> LEED building constructed in Monroe, LA headquarters with “smart” building features. Built on sustainable site with 37,000 sq ft of electrochromic glazing windows which eliminates the needs for blinds or shades and auto-tints, decreasing lighting, heating and cooling costs in excess of 20%.</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b><u>Clarke M. Williams Foundation:</u></b> Foundation started to pay tribute to the company’s founder with the idea of strengthening the communities in which employees live. CTL offers a matching time grant for employees to volunteer in a community service capacity to a non-profit that is matched by the foundation.</p> <p><b><u>Teachers and Technology:</u></b> Grants up to \$5k for K-12 teachers to upgrade technology in the classroom. \$1.4 million provided in 2016.</p> <p><b><u>Employee Giving:</u></b> Annual employee giving campaign where employees are encouraged to donate to causes they care about. All donations are matched by the foundation and provided to the local United Way. \$2.6 million was donated in 2016 with a match of \$1.7 million to 300 United Way organizations across the country.</p>
<b>Supply Chain Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b><u>Set-Top Box Energy Conservation:</u></b> Through voluntary participation in this program with other cable and telco companies, CTL has aided, along with its suppliers, in providing EPA Energy-Star approved set-top boxes which collectively has saved customers \$1.18 billion and avoided 2.2 million pounds of CO<sub>2</sub>e.</p> <p><b><u>Procurement:</u></b> CTL is a participant in the EPA’s SmartWay program encouraging emissions reduction in shipping.</p> <p><b><u>TEER:</u></b> Telecom Energy Efficiency Ratio required for all supplier proposals showing energy consumption for network components.</p>

<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>Customers would say that service delivery is lacking particularly when there are other third-party providers involved in the supply chain. An additional concern from analysts is that of revenue churn on the legacy wireline side of the company. All of this indirectly impacts the share price which has been on a negative trend and is down over 30% in the past year. Lastly, the product is becoming a commodity which makes it hard to compete with low-cost providers. Per a recent discussion with a member of the CenturyLink board, the organization faces difficulty both from government regulation of the industry as well as the ongoing reputation around customer service.</p>
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<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>The organization has taken steps to become more socially conscious although it needs to improve its delivery times and work on its reputation and customer service to completely change its brand image. Many of the CSR initiatives are outweighed by a negative customer experience. As an employee, I appreciate the opportunities the organization provides to serve the community and give back. I have been able to participate in a number of volunteer efforts that provided money to the local United Way while helping those in the community.</p>
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<p>Image 1        (Technology Center of Excellence in Monroe, LA)</p>	
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<p>Image 2 (Hydro-electric Powered Datacenter in Moses Lake, WA)</p>	
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MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Jolene Cook
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	<p>Microsoft Corporation 2017  <a href="https://www.microsoft.com/en-us/environment/default.aspx">https://www.microsoft.com/en-us/environment/default.aspx</a>  <a href="https://www.microsoft.com/en-us/about/corporate-responsibility/default.aspx">https://www.microsoft.com/en-us/about/corporate-responsibility/default.aspx</a>  <a href="http://aka.ms/beyond">http://aka.ms/beyond</a>  <a href="http://download.microsoft.com/download/6/3/E/63E96048-33F6-4DB3-9915-8B974A2A91C7/Responsible_Sourcing_of_Raw_Materials.pdf">http://download.microsoft.com/download/6/3/E/63E96048-33F6-4DB3-9915-8B974A2A91C7/Responsible_Sourcing_of_Raw_Materials.pdf</a>  <a href="https://www.microsoft.com/en-us/CMSFiles/FY17_Sustainable_Devices_and_Packaging_Report.pdf?version=d2a3ce5e-307c-4c57-f00d-c71e40e7e07f">https://www.microsoft.com/en-us/CMSFiles/FY17_Sustainable_Devices_and_Packaging_Report.pdf?version=d2a3ce5e-307c-4c57-f00d-c71e40e7e07f</a></p> <p>37 Pages 40 Pages 3 Pages 41 Pages 28 Pages</p>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Carbon</b>  Microsoft has changed the way it operates by operating Carbon Neutral. The company has reduced energy and emissions, bought clean energy to cover what can't be reduced, and invested in projects for the carbon that can't be reduced or replaced. These efforts are funded by our internal carbon fee, which charges all our business groups for their carbon footprint.  The company is leveraging Data (the cloud) and AI to further reduce emissions, and help customers track, assess and reduce their carbon footprint.</p> <p><b>Energy</b>  The company sponsors Energy Efficient Projects that have saved more than \$6.5 million and avoided 56,000 metric tons of Carbon Emissions. Locally, the company has reduced carbon emissions on the Microsoft corporate campus in Washington (Puget Sound area) to cut energy use by more than 15 percent. It is one of the largest green buyers of energy in the U.S. and has purchased more than 14 billion kilowatt hours of green power. The company works with supplies to encourage reporting, and reducing their respective company emissions.</p> <p><b>Products</b>  Devices are made with a commitment to the minimizing the impact of operations and product life cycles may have on the environment and communities. There are strict environmental criteria and is, at a minimum, designed to be compliant with all applicable legal requirements for each product. Global manufacturing partners and vendors follow sound environmental practices with respect to their facilities, operations, and the products they produce. Where feasible, natural resources are preserved through recycling, and repurposing (recycling).</p> <p><b>Water</b>  In 2015 A Water Stewardship Strategy was built on the belief that we should be looking at water in a holistic way. It helps understand and articulate the value of water in operations, and well as the risks water becomes scarcer.</p>

	<p>This focus helps increase the understanding of water-related risks and impacts to our business and to the communities we serve, improving our water efficiency across datacenter, real estate, and manufacturing locations, and using our learnings to advance innovative solutions to water challenges. The MS water strategy operates in parallel with ongoing commitments to reducing the MS carbon footprint and searching for opportunities to minimize our environmental impact, reduce waste, and conserve other raw materials.</p>
<p><b>Social Initiatives</b> [2 or 3 with short description and outcomes]</p>	<p><b>Human Rights</b> MS has implemented a Supplier's Code of Conduct and international standards to partner with human rights organizations to ensure communities, employees and suppliers adhere to respecting everyone's rights.</p> <p><b>Diversity and Inclusion</b> MS drives to create an inclusive environment that capitalizes on the diversity of the workforce, inclusion of ideas and solutions to meet the needs of a global and diverse customer base. It is the belief that MS's continued success depends on the diverse skills, experiences, and backgrounds that our employees bring to the company. To help foster Inclusion, Microsoft has a rich community of Employee Resource Groups (ERG) and Employee Networks (EN). These organizations provide career development, support, networking opportunities, mentoring, community participation, product input, and assistance in activities that promote cultural awareness. Their programs include speaker series, scholarship programs, community service, development conferences, and heritage celebrations.</p> <p><b>Education</b> There's been a fundamental shift in education—from passive listening to active participation. The ways educators and students capture content, use information, and share knowledge are all rapidly changing. The vision is for everyone, including people with all types of abilities and learning styles. MS partners with educators to redefine learning by creating immersive and inclusive experiences that spark creativity and inspire lifelong learning. Schools are also being supported with critical systems so they can run efficiently and securely.</p>
<p><b>Other Voices</b> [What do others have to say about the company? Corroborate? Contradict?]</p>	<p>While there have been great strides towards the Human Rights Campaign, and focus on Diversity and Inclusion, there has been little movement in the wage disparity. Although the numbers are growing for Inclusive representation in the workforce, a huge criticism is that the Production employees and technical rolls have a significant disparity in representation of women. John Thompson, noted there is a lack of diversity in leadership roles, and we must do better to minimize the wage disparity. The competitors in the industry (Amazon, Google, Salesforce) have out performed MS year after year, and lead in market share.</p>
<p><b>Personal Reaction</b> [New perspectives? Any surprises? To other voices?]</p>	<p>I am a life long Microsoft enthusiast, as well as an employee. I began my love for technology on a competitors machine, however, loved the programs that enabled me to be successful in academics and my career – Excel and Word. I am was also a benefactor of the now retired 100% reimbursement of employee medical benefits, when I had a tragic Sky Diving Accident.</p>



There has been much change in the organization, since Bill Gates left the company. Now that Satya Nadella is the CEO, and the first African American Board Member, John Thompson was named, there have been slow, but significant changes in the company. As Microsoft slowly expands the market share, and has big bets on Azure, Data & Artificial Intelligence, I have high hopes for becoming a truly inclusive workforce that mirrors the communities we live in. Leveraging technology and sharing best practices is essential in bringing third world countries into the Global Economy.

It would be great to see Microsoft fully embrace the Inclusiveness that we brand to include a more diverse workforce that truly invites the best Global minds to the table to impact the lives and livelihood of every person on the planet.

Image 1  
(optional)



Sixty-one percent of packaging is from recycled materials.

In FY17, the recycled content of all paper types, by volume, was 64 percent. For plastics, which include both flexible films and rigid forms, the overall recycled content by volume was 6 percent. However, our rigid plastics, which are more readily recycled, contain an average of 30 percent recycled content.



Recyclability of packaging remained flat in FY17 at 84 percent of maximum score (4.2 on a scale of 1 to 5).

Recyclability is based on an evaluation of different materials used in the package and average global recycling availability of those materials. The ease of recyclability of our package design and materials is important to evaluate end-to-end environmental impact and support a circular economy. In FY17, overall package designs maintained consistency of recyclability with the prior year while we work toward a 20 percent improvement by 2020.



Packaging weight is lighter by 17 percent.

Size and weight of packaging is included as a measure across all programs. On average, package weight was reduced by 17 percent through a combination of right-sizing packaging to the product and introducing new lightweight materials. These new materials were engineered to reduce total package weight while optimizing the performance of the design.



Volume of packaging materials is reduced by 27 percent while package size increased by 7 percent.

Represented as weight of packaging materials, there was a reduction in overall volume of paper and plastic packaging materials for FY17 programs. For package size, as a ratio of product to package dimensions, size on average increased by 7 percent. An increased level of product protection for distribution was engineered into primary device programs to reduce the potential of damaged products or packaging to our customers and prevent waste in terms of materials and energy within the supply chain.



Greenhouse gas emissions are 15 percent less.

Based on life cycle assessment (LCA), FY17 program designs presented an end-to-end reduction of greenhouse gases when considering materials type, manufacturing processes, and recyclability used in determining environmental impact.



Fossil fuels usage is down 14 percent.

Life cycle assessments (LCAs) also showed that materials and processes used for FY17 programs represented a reduction in fossil fuel usage in terms of materials type and energy consumption.

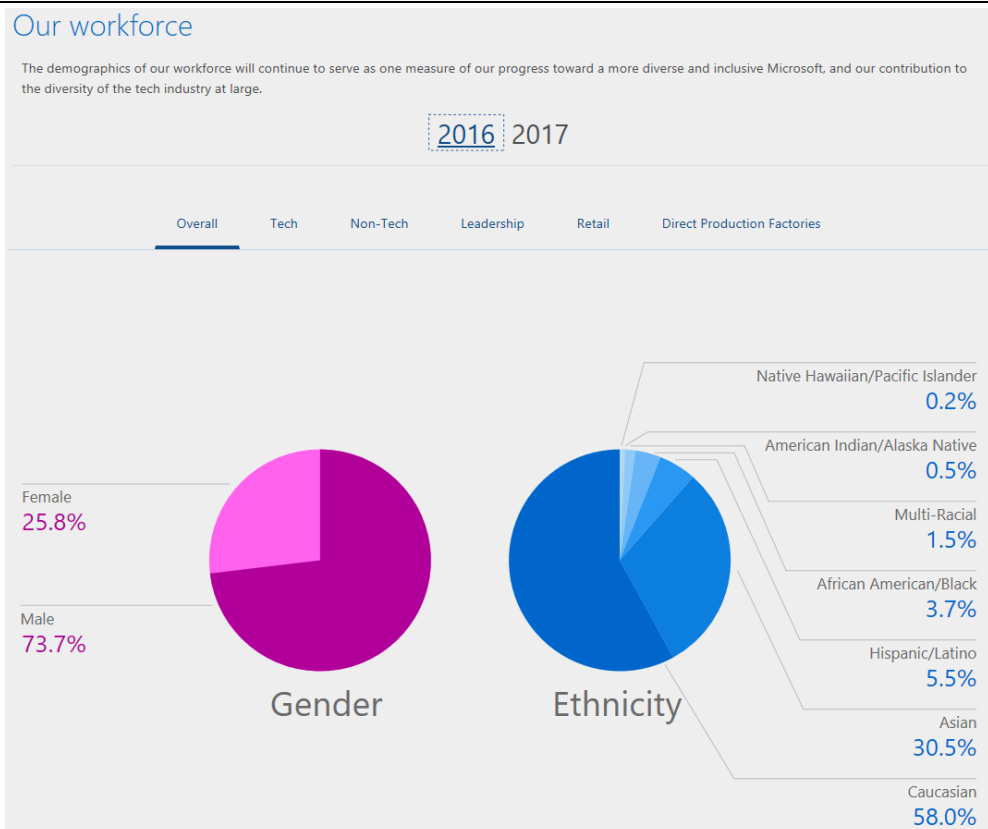
Microsoft's environmental sustainability footprint stakeholders: internal and external



Image 2  
(optional)



Image 3  
(optional)



## Our workforce

The demographics of our workforce will continue to serve as one measure of our progress toward a more diverse and inclusive Microsoft, and our contribution to the diversity of the tech industry at large.

2016 2017

Overall

Tech

Non-Tech

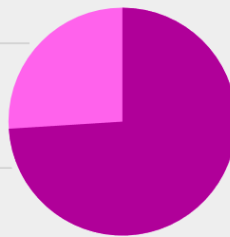
Leadership

Retail

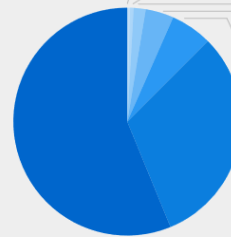
Microsoft Plus LinkedIn

Female  
25.9%

Male  
74.0%



Gender



Ethnicity

## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Skyler Hardy
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Holland America 2015 110 pages <a href="https://www.hollandamerica.com/assets/sustainability/Sustainability-2015_Holland-America-Line.pdf">https://www.hollandamerica.com/assets/sustainability/Sustainability-2015_Holland-America-Line.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Water</b></p> <p>1. Distribution of wastewater: water is discharged in accordance with local, national and international laws. Water is separated into three main categories; gray water, black water and bilge water. 48% of water used is discharged safely into the sea.</p> <p><b>Waste</b></p> <p>1. Since 2010 the total quantity of solid waste generated on board Holland America ships has decreased by 61.7 percent.</p> <p>2. Of the solid waste generated by Holland America cruises in 2015, less than 1 percent was considered hazardous waste. This classified Holland America Line as a small-quantity hazardous waste generator under U.S. Environmental Protection Agency guidelines.</p> <p>3. Holland America helps reduce waste by reusing existing materials and equipment, and recycling.</p> <p><b>Biodiversity</b></p> <p>As mentioned previously, Holland America is committed to minimizing water and air pollution to protect biodiversity.</p> <p>1. Ballast Water: Ballast water is seawater that is used to balance the ship and provide stability. Currently, ballast water is held while in port. Typically it is more ideal to discharge the ballast water in deep waters. Holland America is working on developing a treatment system for ballast water to responsibly manage waste discharge that effects biodiversity.</p> <p>2. Marine Mammal Protection: Holland America has developed a training program to train navigators to predict whale behaviors based on the species to ultimately avoid collisions and to protect the whales.</p> <p>3. Half Moon Cay: a private island in the Bahamas purchased by Holland America Cruises in 1996. Only 4% of the island is developed and majority remains a bird reserve.</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Giving &amp; Volunteering</b></p> <p>1. In 2014 and 2015, Holland America contributed \$8.5 million in cash and in-kind donations to organizations focusing in health and human services, environment, arts, and maritime.</p> <p>2. Holland America is ranked among the top 100 contributors to King County.</p> <p>3. Many employees participate in the United Way's annual day of caring.</p> <p><b>Labor Relations &amp; Fair Employment</b></p> <p>1. 80% of shipboard Holland America employees were covered by collective bargaining agreements as of 2015.</p> <p>2. Holland works with several unions that represent their employees including Associated Marine Officers' and Seamen's Union of the Philippines, Nautilus International, and Kesatuan Pelaut Indonesia.</p> <p><b>Scholarships</b></p> <p>1. Holland America established a scholarship program titled Cruising to Success</p>

	<p>Youth Scholarship.</p> <p>2. Five recipients each from North America and non-North America receive a on-time \$1,000 scholarship.</p> <p>3. Since 1995, Holland America has also provided over \$100,000 in scholarships in partnership with Society of Travel Agents (ASTA).</p>																												
<p><b>Supply Chain Initiatives</b> [2 or 3 with short description and outcomes]</p>	<p><b>Business Partner Code of Conduct and Ethics</b> A Business Partner Code of Conduct and Ethics was released in 2014 to help business partners with the legal compliance and ethical behavior within supply chain.</p> <p><b>Pallets</b> Holland America doesn't accept wood pallets, only plastic, which can be reused. Vendors are expected to commit 100% to improving quality and accuracy.</p>																												
<p><b>Other Voices</b> [What do others have to say about the company? Corroborate? Contradict?]</p>	<p>Majority of what you see in the news and online about Holland America revolves around customers getting sick on board and ultimately having a negative experience. In 2017, Holland America was hit especially hard with Norovirus press. According to the CDC and FDA, contaminated food or water is the most common cause of Norovirus. On the flip side, several of Holland America's cruise ships have received an impressive score of 100 on health inspections conducted by USPH.</p>																												
<p><b>Personal Reaction</b> [New perspectives? Any surprises? To other voices?]</p>	<p>From the perspective of someone who has actually been on a Holland America cruise, it's interesting to learn more of the behind the scenes of what the company is doing to increase overall experience satisfaction as well as their impact on the community and world. I was pleasantly surprised to learn about the initiatives they are taking to ensure continued biodiversity. In terms of the other voices, I am not surprised that much of what I found was revolved around people having bad experiences and getting sick on cruises. Even before this, I rarely heard good things in the news about cruise ships. I guess a lot of it has to do with the luck of the draw and you just have to hope you don't get a virus!</p>																												
<p>Image 1</p>	<div><p><b>G4-EN23 – HAZARDOUS AND NON-HAZARDOUS WASTE &amp; WASTE RATE</b></p><table><thead><tr><th>Year</th><th>Non-Hazardous Waste (Metric Tons)</th><th>Hazardous Waste (Metric Tons)</th><th>Total Waste Rate (Kilograms/Person-Day)</th></tr></thead><tbody><tr><td>FY2010</td><td>81,612</td><td>1,163</td><td>7.2</td></tr><tr><td>FY2011</td><td>64,037</td><td>1,575</td><td>5.4</td></tr><tr><td>FY2012</td><td>72,651</td><td>603</td><td>6.1</td></tr><tr><td>FY2013</td><td>78,538</td><td>89</td><td>6.6</td></tr><tr><td>FY2014</td><td>78,130</td><td>113</td><td>6.6</td></tr><tr><td>FY2015</td><td>61,935</td><td>101</td><td>4.2</td></tr></tbody></table></div>	Year	Non-Hazardous Waste (Metric Tons)	Hazardous Waste (Metric Tons)	Total Waste Rate (Kilograms/Person-Day)	FY2010	81,612	1,163	7.2	FY2011	64,037	1,575	5.4	FY2012	72,651	603	6.1	FY2013	78,538	89	6.6	FY2014	78,130	113	6.6	FY2015	61,935	101	4.2
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Image 2

### G4-LA1 – SHIPBOARD WORKFORCE SOURCING REGION 2015

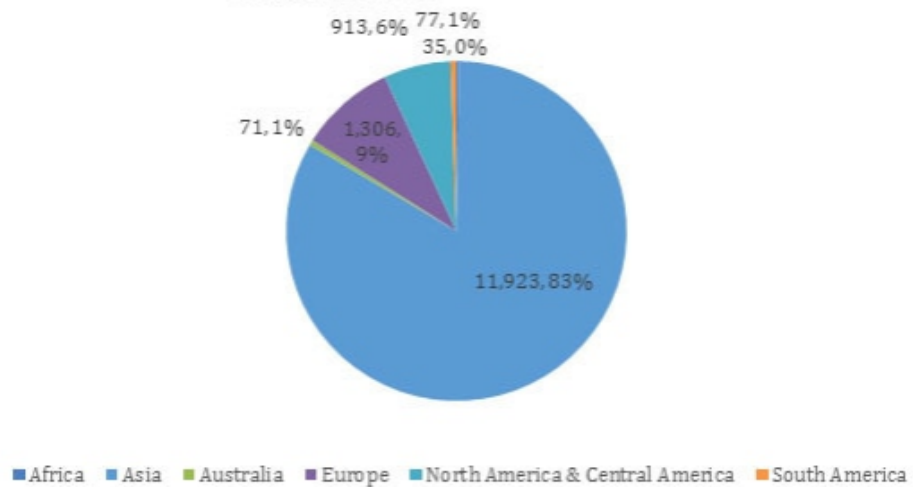
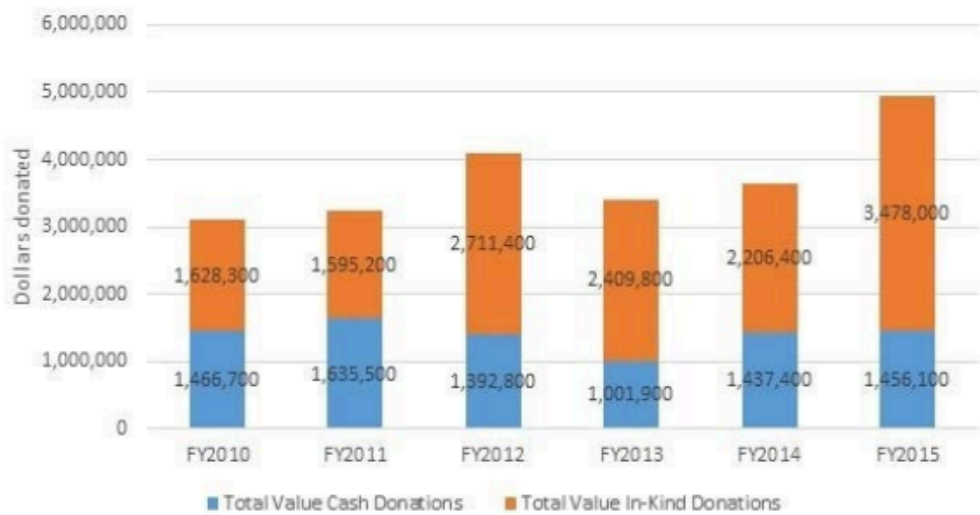


Image 3  
(optional)

### SO1 – TOTAL DOLLARS DONATED 2010–2015





## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Haydar Kir
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Ikea 2015 94 pages <a href="http://www.ikea.com/ms/en_US/img/ad_content/2015_IKEA_sustainability_report.pdf">http://www.ikea.com/ms/en_US/img/ad_content/2015_IKEA_sustainability_report.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	Manufacturing: 1) Part of its commitment, IKEA is using cotton harvested 100% from more sustainable sources. 2) In FY15, 50 % of the wood used for manufacturing came from more sustainable sources, which is defined as certified or recycled wood. IKEA is also aiming for 100% by 2020. 3) Commit to 100% renewable energy by 2020. IKEA has committed to own and operate wind farms, solar panels, and biomass generators, which is expected to produce over 70% of its consumption.
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	1) IKEA has committed to invest around EUR 600 Million for investment in renewable energy, along with additional EUR 400 Million from the IKEA foundation to support communities most impacted by climate change. This is planned to be accomplished with 2) Continuous encouragement of co-workers and customers to get involved on IKEA.com and social media by signing petition at <a href="http://www.momentforaction.org">www.momentforaction.org</a> to show people's support for action on climate change and 100% clean energy future. 3) Continuous improvement to emit low carbon emissions and continue to move towards renewable energy.
<b>Supply Chain Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	1) By FY15, IKEA had formed supplier networks in 50 countries. Average long-term partnership with supplier average to 11 years. Along with this long partnership, IKEA has committed to work with suppliers to continuously improve energy efficiency by 18% and continue to encourage the suppliers by switching to renewable energy. 2) Continuously design (or encourage designs) that are environmentally friendly and saves energy.
<b>Other Voices</b> <i>[What do others have to say about the company? Corroborate? Contradict?]</i>	1) Peter Bakker, President, World Business Council for Sustainable Development: Making sustainable living easy requires not just smarter furniture, but also supporting water, energy and waste infrastructure. IKEA should take a visible leadership position beyond home furnishings, inspiring other companies to support its vision of people and planet existing together positively. 2) Peter Kelly-Detwiler, Forbes Contributor: IKEA's Aggressive Approach To Sustainability Creates Enormous Business Opportunities <a href="https://www.forbes.com/sites/peterdetwiler/2014/02/07/ikeas-aggressive-approach-to-sustainability-creates-enormous-business-opportunities/#7ef65be0a611">https://www.forbes.com/sites/peterdetwiler/2014/02/07/ikeas-aggressive-approach-to-sustainability-creates-enormous-business-opportunities/#7ef65be0a611</a>

<b>Personal Reaction</b> <i>[New perspectives?</i> <i>Any surprises?</i> <i>To other voices?]</i>	<ol style="list-style-type: none"> <li>1) IKEA is both sustainable and not sustainable. In a nutshell, IKEA portrays itself as a manufacturer that commits itself for using sustainable materials, but in the end IKEA uses cheap products that do not last a long time, which will eventually end up in landfill.</li> <li>2) IKEA keeps building their stores in suburbs, rather than urban centers, which actually result in higher emissions from shoppers who want to get to nearest IKEA stores.</li> <li>3) It is very unclear if IKEA has the similar supply chain issues as the fashion businesses do. According to several studies, fashion businesses tend to commit to similar type of sustainable plans; however, do not tend to know how their supply chains work. It would be interesting to know how well IKEA has its grip on its supply chain.</li> </ol>
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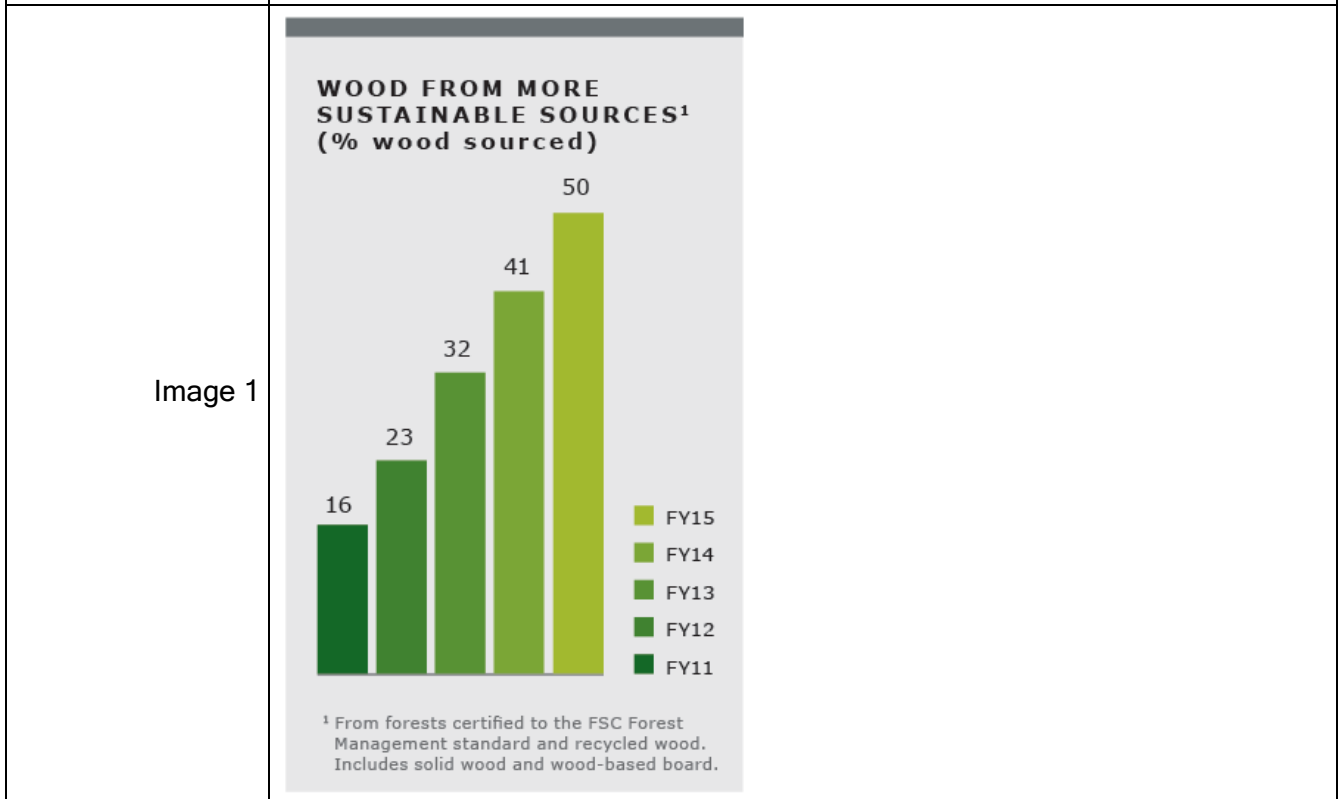
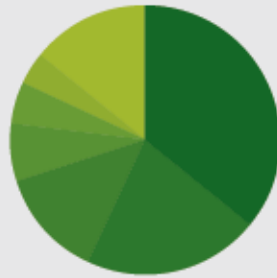


Image 2

AUDITS OF OUR WOOD SUPPLY CHAIN	FY11	FY12	FY13	FY14	FY15
IKEA suppliers that are FSC Chain of Custody certified (%)	34.9	42.2	52.5	66.1	72.0
Total wood volume from FSC Chain of Custody certified suppliers (%)	62.0	63.5	84.5	94.8	98.0
Number of IKEA audits — under IWAY Forestry Standard and IKEA wood supply chain audits (number performed by third-party auditors)	139 (5)	116 (5)	149 (11)	143 (4)	108 (6)
Total wood volume from suppliers that underwent an IKEA audit during FY15 (%)	12.3	17.3	12.4	19.7	13.0
Wood volume that underwent an IKEA audit that complies with IKEA minimum forestry requirements (%)	94.0	95.2	99.1	99.0	98.0

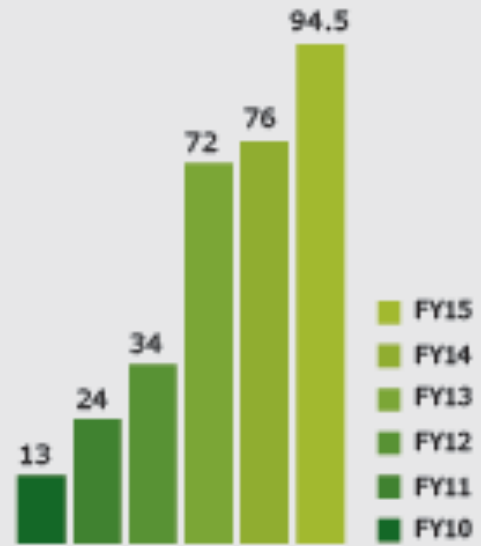
Image 3  
(optional)

**COUNTRIES WE SOURCED  
COTTON FROM IN FY15  
(% cotton sourced)**



India	36
Pakistan	21
China	13
Turkey	7
USA	5
Brazil	4
Others	14

**COTTON FROM MORE  
SUSTAINABLE SOURCES  
(% cotton sourced)**



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Jennifer Mattoon
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Whole Foods Market 2012 NA <a href="http://www.wholefoodsmarket.com/mission-values/core-values/sustainability-and-our-future">http://www.wholefoodsmarket.com/mission-values/core-values/sustainability-and-our-future</a> <a href="http://www.wholefoodsmarket.com/sites/default/files/media/Global/PDFs/2012GreenMissionReport.pdf">http://www.wholefoodsmarket.com/sites/default/files/media/Global/PDFs/2012GreenMissionReport.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>Whole Foods Market's (WFM) vision of a sustainable future means our children and grandchildren will be living in a world that values human creativity, diversity, and individual choice. At WFM, they are starting to implement this vision of the future by changing the way they think about the relationships between food supply, the environment, and our bodies.</p> <p>WFM dedicates themselves to the actions that will make their vision flow naturally from our daily work. In this respect, they have adopted a philosophy that is mission-driven; symbolized by our Whole Foods-Whole People-Whole Planet logo that exemplifies our commitment to our principles. Their mission is to offer the highest quality, least processed, most flavorful and naturally preserved foods.</p> <p>WFMs have been advocates and supporters of organic agriculture throughout the last 20 years. In the early days when the organic network was young and fairly disorganized, making it difficult to stock as much organic produce as we had hoped to, they originally set up their own produce distribution company in California. There WFM developed relationships with organic farmers, educating each other about the variety of organic produce that would feasibly make available. As time went on, WFM developed packaging, storage, and shipping procedures that insured the quality of organic products from the farms to our stores.</p> <p>WFM are advocates and supporters of naturally raised meat and poultry. In addition to telling consumers our concerns about added hormones and antibiotics, they work with ranchers and producers to develop hormone and antibiotic-free alternatives for their customers to buy.</p> <p>WFM advocates fewer and safer pesticides in non-organic foods, educating their customers about the value of foods produced without harmful or questionable food additives, and have worked with manufacturers to supply our stores with foods that meet their strict quality standards.</p> <p>WFM has installed solar panels in ~25 locations nationwide. With this initiative Whole Foods is one of the top 25 commercial solar companies in the country</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>WFM educates their customers about the importance of food safety measures and techniques, including concerns about irradiation, food borne illnesses, food handling, and material safety.</p>

	<p>WFM encourages the use of less toxic cleaning products, educating customers about the positive impact that can be made in air and water quality by using these alternative products.</p> <p>WFM promotes the purchase of bulk food and other products utilizing reduced or reusable packaging, as well as encouraging shoppers to reduce waste through our "nickel per bag" rebate program.</p> <p>WFM actively educates customers about the senseless killing of dolphins in the pursuit of tuna and work to encourage the tuna canneries to buy only from fishermen who utilize fishing methods that are designed to eliminate the collateral killing of dolphin populations.</p> <p>WFM educates customers about the cruelty of animal testing of body-care products, helping to influence the marketplace by taking a clear stance that those types of products will not be tolerated.</p>
<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<p>WFM financially supports environmental organizations, helping them to do their work towards a more sustainable planet. The company offers small interest loans to small organic farmers annually as they understand the link between organic farming and its effects on reversing climate change</p> <p>A priority at WFM is to source from small producers and to work with midsize farmers. A concern with the acquisition into Amazon is that they would change this structure. Only time will tell as this partnership matures.</p>
<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>As mentioned above, some are concerned with the partnership with Amazon given how Amazon operates. Farmers are concerned they will not benefit from this alliance and will have to move away from being a supplier to WFM.</p> <p>In researching this company, there were a couple of articles that mentioned WFM was all talk about its sustainability but not much action on it - a few companies have given it average ratings on various ratings of sustainable companies.</p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>I personally believe this company is on the right track regarding its sustainability initiative. Given some time to adjust to market influences, WFM will be able to follow-through on various approaches to its sustainability.</p>

Image 1

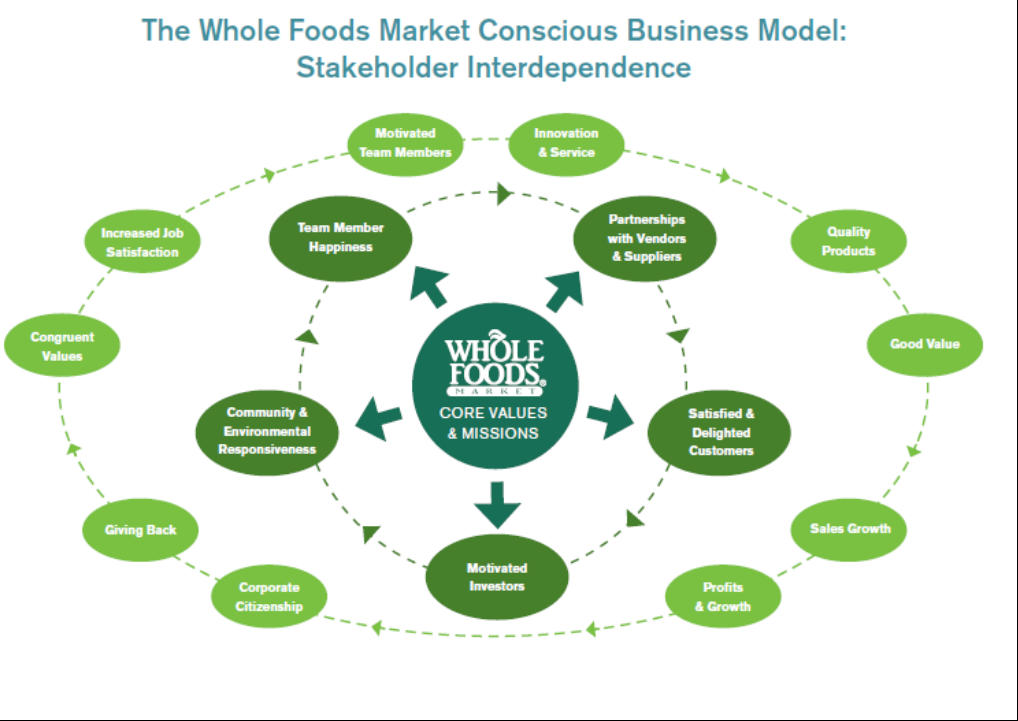


Image 2

NAVIGATING SUSTAINABILITY

# HOW TO MAKE THE BEST SEAFOOD CHOICES

AT WHOLE FOODS MARKET®



## FARM-RAISED SEAFOOD



THIRD-PARTY VERIFIED TO MEET OUR WHOLE FOODS MARKET QUALITY STANDARDS FOR FINFISH AND SHRIMP.

No other grocery store or fish market works as hard as we do to help keep farmed seafood and the environment healthy.

## WILD-CAUGHT SEAFOOD



**SEAFOOD FROM MARINE STEWARDSHIP COUNCIL CERTIFIED FISHERIES**

The world's leading certifier for sustainable seafood, MSC is a non-governmental organization using a multi-stakeholder, international certification program to provide incentives for fisheries to address key issues such as overfishing and bycatch.



**OTHER WILD-CAUGHT SEAFOOD SELECTIONS**

For wild-caught seafood that is not from MSC-certified fisheries, look for these color ranking symbols to identify sustainability status.



Relatively abundant; fishing method causes little damage.



Some problems exist with abundance or fishing method.



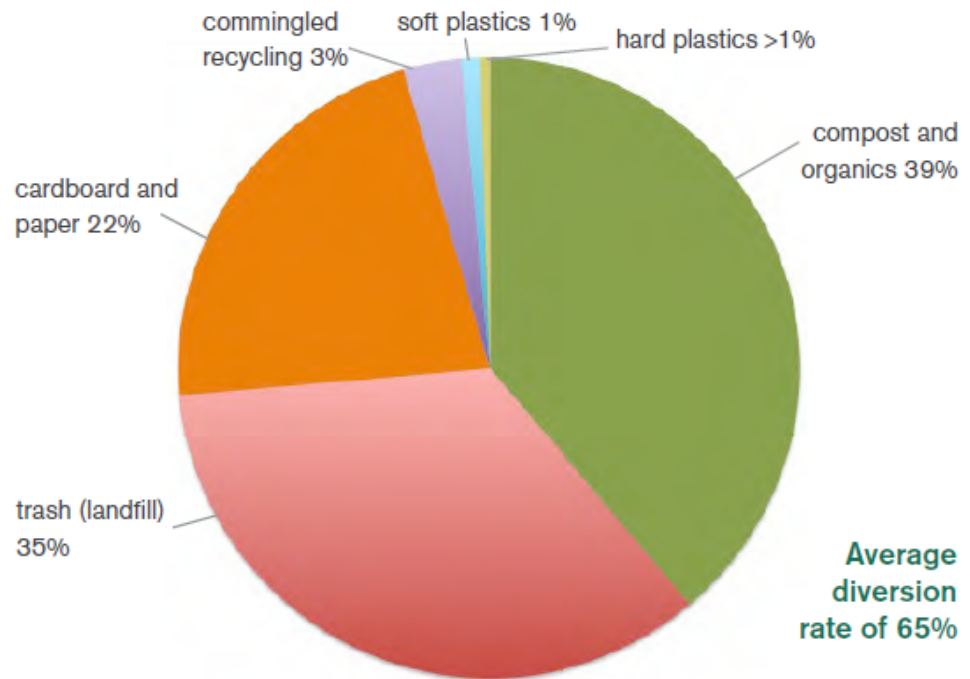
Not carried at Whole Foods Market.

Our wild-caught seafood is ranked by our honored partner, Blue Ocean Institute.



Image 3  
(optional)

### 2010 Average Waste Diversion Whole Foods Market Stores



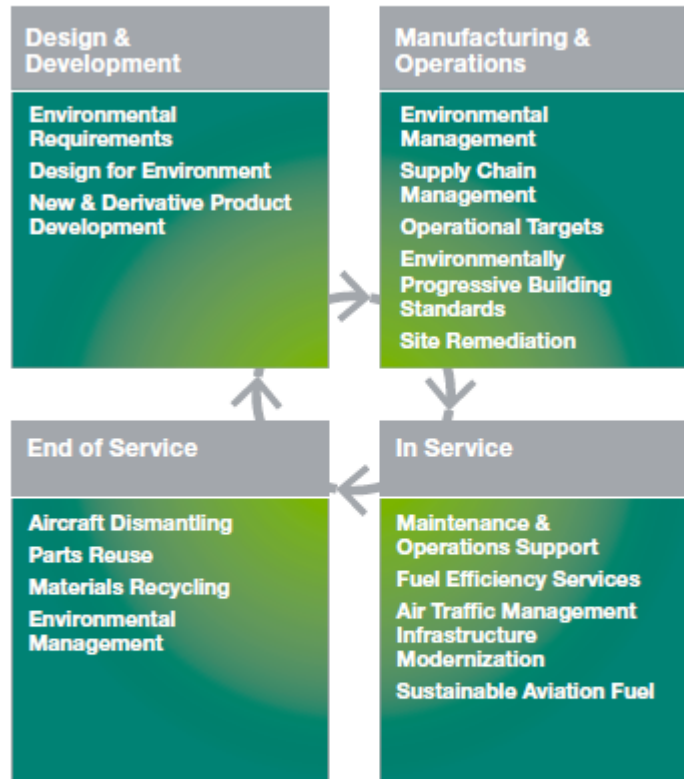
## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Jana Safstrom
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	The Boeing Company 2017 38 Pages / 31 Pages Environment Report: <a href="http://www.boeing.com/resources/boeingdotcom/principles/environment/pdf/2017_environment_report.pdf">http://www.boeing.com/resources/boeingdotcom/principles/environment/pdf/2017_environment_report.pdf</a> Global Engagement Portfolio: <a href="http://www.boeing.com/resources/boeingdotcom/principles/community-engagement/pdf/2017_global_engagement_portfolio.pdf">http://www.boeing.com/resources/boeingdotcom/principles/community-engagement/pdf/2017_global_engagement_portfolio.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<ul style="list-style-type: none"> <li>• Reducing Product Greenhouse Gas Emissions <ul style="list-style-type: none"> <li>○ Fuel Efficiency: Boeing offers a Fuel Dashboard tool that utilizes data analytics to help airlines run as efficiently as possible. “More than two dozen airlines use Fuel Dashboard and are reducing fuel use by an average of 4.3 percent, which proportionately lowers carbon dioxide emissions.”</li> <li>○ Sustainable Aviation Fuel: Boeing has actively pursued the development and use of a variety of sustainable aviation fuels including HEFA-Plus (a green diesel), tobacco, salicornia and seawater/sludge, and steel mill waste. “Scientific studies have shown that biofuels reduce life cycle emissions by 50 to 80 percent compared with fossil fuel.”</li> </ul> </li> <li>• Reducing Operations Greenhouse Gas Emissions <ul style="list-style-type: none"> <li>○ Energy Conservation: Boeing has heavily reduced their energy usage while increasing production by utilizing energy efficient technology. <ul style="list-style-type: none"> <li>▪ “Over the past five years...commercial airplane production has increased by nearly 25 percent (and) absolute energy use has decreased by 5.9 percent.</li> <li>▪ Achieved absolute energy reduction in 2016 of 802,000 mmbtu (million British thermal units).</li> <li>▪ Improved energy efficiency by 13 percent since 2012.</li> <li>▪ In 2016, commissioned a new chiller plant at the Everett, Washington, site to support the world's largest building by volume, gaining a 36 percent efficiency improvement.”</li> </ul> </li> </ul> </li> <li>• Operations Resource Management <ul style="list-style-type: none"> <li>○ Water Management: Boeing partnered with numerous firms to develop new technology for conserving water. In 2016 25 million gallons of water were saved at the Huntington Beach site by irrigating with repurposed water.</li> <li>○ Operations Solid Waste Management &amp; Landfill: Boeing has implemented technology such as roaming print and additive manufacturing to reduce waste. Roaming print reduced wasted paper by 800,000 sheets per year. Since 2012, Boeing has reduced their waste to landfills by ~19%.</li> </ul> </li> </ul>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<ul style="list-style-type: none"> <li>• Go for Zero - Workplace Injury Reduction <ul style="list-style-type: none"> <li>○ Boeing has a company-wide initiative that aims to eliminate workplace injuries. The launch of the Go for Zero program led to</li> </ul> </li> </ul>

	<p>record-low missed work days due to injuries in 2013. The goal is to reduce injuries by 25% each year.</p> <ul style="list-style-type: none"> <li>• Encourage Education <ul style="list-style-type: none"> <li>○ Boeing supports educational programs that develop future engineers and scientists.</li> <li>○ Boeing has significantly funded STEM programs. “Over the past five years, Boeing and the Boeing Charitable Trust have contributed more than \$85 million towards community initiatives that have inspired an estimated 3.6 million young women in STEM globally.” “Through a partnership between Boeing and the University of Sheffield in the United Kingdom, more than 250 advanced apprentices a year will receive training while delivering real-world industry solutions at the Advanced Manufacturing Research Centre.”</li> <li>○ In addition to contributing to STEM programs, Boeing is heavily invested in FIRST robotics. “In 2016, over 500 Boeing employees mentored more than 10,000 students in FIRST teams.”</li> </ul> </li> <li>• Veteran Engagement <ul style="list-style-type: none"> <li>○ Boeing has programs to assist in the military-to-civilian transition process including skill development, training, recovery and rehabilitation programs. “Boeing employs more than 20,000 veterans representing approximately 15 percent of the Boeing workforce.”</li> </ul> </li> </ul>
<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<ul style="list-style-type: none"> <li>• Basic Working Conditions and Human Rights <ul style="list-style-type: none"> <li>○ Boeing incorporates mandatory language into its contracts to protect basic working conditions and human rights in its supply chain. This is a requirement of doing business with Boeing. Employees are required to take training to help them identify potential violations.</li> </ul> </li> <li>• Compliance with Chemical Restrictions and Bans <ul style="list-style-type: none"> <li>○ Boeing is partnering with its supply chain to identify safe and sustainable alternatives to banned or soon-to-be-banned chemicals. They are also working with agencies such as IAEG to simplify the process for suppliers to report chemical usage.</li> </ul> </li> <li>• Conflict Minerals <ul style="list-style-type: none"> <li>○ Boeing has become increasingly more involved in the banning of conflict minerals, minerals mined in the Democratic Republic of Congo and its surrounding counties. “The mining is done with coerced labor under often harsh and unsafe conditions, and their sales are used to finance armed conflicts in the region.” Boeing’s contracts with its suppliers bans the use of products made with conflict raw material.</li> </ul> </li> </ul>

<div>Other Voices</div> <div>[What do others have to say about the company? Corroborate? Contradict?]</div>	<div>Source: <a href="https://www.dailynews.com/2017/09/15/boeing-altered-its-cleanup-plan-for-toxic-santa-susana-land-heres-why-that-worries-local-leaders/">https://www.dailynews.com/2017/09/15/boeing-altered-its-cleanup-plan-for-toxic-santa-susana-land-heres-why-that-worries-local-leaders/</a> Despite having robust environmental initiatives in their latest environmental report, Boeing said little about cleaning up land that they have previously contaminated. One such property is the Santa Susana Field Lab. Boeing was given a deadline of 2017 to clean up the land, but recently filed a lawsuit to overturn a state mandate that says they have to clean the land to agricultural standards. Boeing has proposed meeting a lower standard, which has been met with opposition locally.</div> <div>Source: <a href="https://www.seattletimes.com/opinion/once-a-polluter-boeing-now-leading-on-duwamish-river-cleanup/">https://www.seattletimes.com/opinion/once-a-polluter-boeing-now-leading-on-duwamish-river-cleanup/</a> Conversely, their cleanup of a local river has had a more positive reception. While dozens of companies were identified as polluting the Duwamish River, Boeing took the lead in creating and implementing a robust cleanup plan that set a high standard.</div>															
<div>Personal Reaction</div> <div>[New perspectives? Any surprises? To other voices?]</div>	<div>As a Boeing employee, I wasn't really surprised by what I discovered. If anything, I was a little surprised at what I didn't find. For a company that values diversity and safety so heavily, I was surprised that there weren't more data points made available with regards to those initiatives. On the whole, the focus seemed to be on environmental initiatives, presumably because those more directly affect Boeing's bottom line. A company's environmental impact has also been a hot topic in recent years.</div> <div>While Boeing requires their supply chain to adhere to strict contract language regarding basic working conditions and human rights, I felt that there was a lack of compliance monitoring. It's true that employees are trained to identify potential violations, but this is a fairly reactive approach to the issue. Boeing also solely uses internal resources to monitor compliance. It would be interesting to see how a third-party viewed Boeing's supply chain and their compliance to basic working conditions and human rights requirements.</div> <div>Overall, my view of the company did not change. If anything, I was impressed with the amount of resources being dedicated to environmental issues.</div>															
<div>Image 1</div>	<div><div>2016 Environmental Performance</div><div>Data Representative of the Majority of Boeing Facilities</div><div>(Percent Performance to 2012 Baseline)</div><div><table><thead><tr><th>Metric</th><th>2012 Baseline</th><th>2016 Performance</th></tr></thead><tbody><tr><td>Hazardous Waste*</td><td>0%</td><td>-17.4%</td></tr><tr><td>GHG Emissions</td><td>0%</td><td>-4.9%</td></tr><tr><td>Solid Waste</td><td>0%</td><td>-19.1%</td></tr><tr><td>Water Intake</td><td>0%</td><td>-17.6%</td></tr></tbody></table><div>○ 2017 Target: 0% absolute growth — water, GHG and solid waste; 0% revenue-adjusted growth — hazardous waste</div><div>*Normalized to revenue</div></div></div>	Metric	2012 Baseline	2016 Performance	Hazardous Waste*	0%	-17.4%	GHG Emissions	0%	-4.9%	Solid Waste	0%	-19.1%	Water Intake	0%	-17.6%
Metric	2012 Baseline	2016 Performance														
Hazardous Waste*	0%	-17.4%														
GHG Emissions	0%	-4.9%														
Solid Waste	0%	-19.1%														
Water Intake	0%	-17.6%														

## Environmental Opportunities in the Product Life Cycle



This chart represents the various ways Boeing considers environmental improvements throughout the product life cycle. While the life cycle begins with design & development and ends at the end of service, it's important to note that those end of service opportunities are considered at the beginning of the cycle, forming a continuous circle of improvement.

Image 3  
(optional)



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Joel Snelling
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Starbucks 2016 24 <a href="https://www.starbucks.com/responsibility/environment">https://www.starbucks.com/responsibility/environment</a> <a href="https://www.starbucks.com/responsibility">https://www.starbucks.com/responsibility</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<ol style="list-style-type: none"> <li>1. Starbucks now have over 1000+ LEED®-certified stores in 20 countries across all three of our regions. This store includes the use of recycled coffee grounds in table tops; low emitting materials for adhesives, sealants, paints, coatings and flooring; over 10% of materials extracted within 500 miles; and over 45% lighting power savings through the use of efficient LED fixtures</li> <li>2. Starbucks goals for energy conservation are ambitious. In the past year Starbucks has completed the installation of Energy Management Systems in approximately 6,000 stores. Energy Management Systems optimize heating and cooling and will enable them to identify additional opportunities for savings going forward. We are also continuing to focus on driving energy savings in our stores through optimization of equipment and lighting specifications.</li> <li>3. Starbucks is commitment to lead the food industry toward greater access to recycling for cups and other packaging—including driving demand for recycled materials. A key milestone came in 2006, when we began offering a cup with 10% post-consumer recycled paper fiber in North America, after helping develop the technology and leading the industry to gain approval for using recycled fiber for food packaging. We also include 50% post-consumer, recycled PET (rPET) in our cold cups used in European markets, and 15% rPET in our Bistro boxes in the US.</li> </ol>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<ol style="list-style-type: none"> <li>1. Starbucks is creating an inclusive, thriving workforce. Approximately 66% of Starbucks U.S. partners (employees) are women; 43% are minorities. Of Starbucks 50+ Top leaders at the company as defined by title of senior vice president (svp) or higher, 32% are women and 18% are minorities. Starbucks' vice presidents (vp), 48% are women and 19% are minorities. Male and female partners who perform similar work are paid within 99.7% of each other. They examine each component of compensation including base pay, bonus, and stock, and we work to correct unexplained, gender-based differences. By 2020, Starbucks will strive to increase their female and minority representation at the Top Leadership level (approximately 50-60 SVPs and higher) by 50 percent.</li> <li>2. By the end of 2016, Starbucks has had more than 6,000 partners participating in the Starbucks College Achievement Plan program with 227 graduates. In March 2017, we announced the Pathways to</li> </ol>

	<p>Admission, a program that provides partners the ability to work toward admission tuition-free</p> <p>3. Starbucks is embracing and employing tens of thousands of youth, ages 16–24, who are disconnected from work and school, to help them achieve their dream and our shared future. Starbucks led the launch of the 100,000 Opportunities Initiative with 50 other employers in 2015. As the country’s largest employer-led coalition committed to creating pathways to meaningful employment for young people, the coalition has reached its goal of hiring 100,000 Opportunity Youth—two years ahead of schedule.</p>
<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<ol style="list-style-type: none"> <li>1. Starbucks has invested more than \$100 million in supporting coffee communities. Collaborative farmer programs and activities – including Coffee and Farmer Equity (C.A.F.E.) Practices, farmer support centers, farmer loans and forest carbon projects. All of these programs directly support improving farmer livelihoods and ensuring a long-term supply of high-quality coffee for the industry. Starbucks recent commitment to provide 100 million trees to farmers by 2025 has a cumulative effect when added to the work of The Sustainable Coffee Challenge who recently announced an industry wide effort to re-plant 1 billion coffee trees. Starbucks boasts of 99% of their coffee is ethically sourced.</li> <li>2. Starbucks support communities through farmer loans, growing our farmer support centers and continuously improving and expanding our ethical sourcing programs, such as C.A.F.E. Practices. In deploying this unique set of strategies, Starbucks is improving the resilience of our supply chain and, ensuring the long-term supply of high-quality coffee and other agricultural goods, as well as building stronger, enduring farming communities. Starbucks has invested more than \$70 million in collaborative farmer programs and activities – including C.A.F.E. practices, farmer support centers, farmer loans and forest carbon projects.</li> <li>3. For 13 years, Starbucks has supported Mercy Corps’ Community Health and Advancement Initiative (CHAI) Project to provide youth vocational training, health services and water access improvements to more than 100,000 people from 39 rural communities in the Darjeeling and Assam regions in India and in Guatemalan cardamom-growing villages. Starbucks is on track to meet our 2020 goal. As of 2016, nearly 65% of tea was ethically sourced. Starbucks is also expanding their collaboration with the Ethical Tea Partnership to launch the first collaborative Tea Supplier Summit in China. The Ethical Tea Partnership Tea Supplier Summit will represents the first tailored summit for producers, suppliers, brands and certifiers to discuss the sustainability commitments of the industry and the sustainability challenges faced by the Chinese supply chain.</li> </ol>



<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<ol style="list-style-type: none"> <li>1. In our opinion, the Data for the fiscal year ended October 2, 2016 is fairly presented, in all material respects, based on the criteria indicated above. Seattle, Washington April 26, 2017 (Moss Adams LLP)</li> <li>2. There has been a healthy amount of skepticism over the years regarding the role of Starbucks' partner in the sustainability standard, the nonprofit Conservation International. One of the world's largest conservation groups, CI's other <u>corporate clients</u> include ExxonMobil, Shell, Walmart, Chevron, Coca-Cola, Nestlé, Monsanto, and Disney. However, while CI helped develop the CAFÉ Practices criteria, all verification audits are done by <u>SCS Global Services</u>, a neutral, financially independent third party. That said, many large coffee companies <u>buy a small percentage of certified coffee</u> for a few of their brands and leave it at that. In their company-wide sense alone, the efforts of Starbucks are both substantial and important. (Julie Craves; a University of Michigan ecologist)</li> <li>3. According to Oxfam (2006), Starbucks had a hand in the Ethiopian government's recently failed attempt to trademark two of the nation's coffee bean names, Harar and Sidamo. The government believes that trademarking those names could help the country's coffee industry take home an extra \$88 million a year. Oxfam International, on behalf of the Ethiopian government, has accused Starbucks of blocking Addis Abbaba's trademark applications with the U.S. Patent and Trademark Office.</li> <li>4. Starbucks is way behind on many stated environmental goals. The company reduced energy consumption in its company-operated stores by only 7.1% between 2008 and 2013. (Business Insider, 2014)</li> <li>5. Fearnley-Whittingstall, chef turned activist, specifically called on major coffee companies Starbucks and Costa to be more transparent about their cups. He accused the companies of using misleading recycling claims, asserting that the cups cannot be recycled by normal public waste collection services and that less than 1 percent are actually recycled. "The truth is, [the cups] are barely recyclable at all - in the everyday, commonly understood sense of the word," Fearnley-Whittingstall said. "They cannot be recycled through any of the normal public waste collection services - who are consistently diverting them to be incinerated or sent to landfill. (2016).</li> <li>6. It takes about 20 years for the standard paper cup to break down and the majority of Starbucks cups are not made from recycled paper. Starbucks has agreed to test a new kind of recyclable coffee cup in the U.K. but Starbucks is hoping its #bettercup campaign can expedite things. (Monica Nickelsburg)</li> </ol>
<p><b>Personal Reaction</b>  <i>[New perspectives?]</i></p>	<ol style="list-style-type: none"> <li>1. I will not lie, I am a Starbucks customer. I like all they have to offer, the</li> </ol>

<p><i>Any surprises? To other voices?]</i></p>	<p>consistent outputs, a casual atmosphere, happy employees and a consistently-positive business model. I do realize that I contribute to all the negative aspects of a mass-produced product, but I do my best to offset my foot print and am proud to support any business that projects such supporting ideas. I do realize they could do more, but they are steps ahead of most American Businesses. Most business will not acknowledge their issues and definitely wouldn't do it unless the bottom line is threatened. With that said, I understand that there will always be detractors, even if they are perfect. Someone is always there trying to tear you down. I have no delusions that Starbucks is the perfect human-business model, but I believe that the positives outweigh the negatives.</p> <ol style="list-style-type: none"> <li>2. Every two years, Starbucks releases a responsibility report. This report outlines a plan on how Starbucks can improve on important issues like, social and environmental issues. I believe that Starbucks releases these statements to stay in front of hot-button issues that the public places on them.</li> <li>3. My feelings have not changed and I will continue to give Starbucks my business.</li> </ol>
<p>Image 1</p>	 <p>Some communities readily recycle Starbucks paper and plastic cups, but with operations in 75 countries, Starbucks faces a patchwork of recycling infrastructure and market conditions.</p>
<p>Image 2</p>	

Reclamation Drive-Thru is made entirely of reclaimed shipping containers.

Image 3  
(optional)



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Ross Stannard
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Links:</b>	The Boeing Company 2017 38 pages, 31 pages <a href="http://www.boeing.com/resources/boeingdotcom/principles/environment/pdf/2017_environment_report.pdf">http://www.boeing.com/resources/boeingdotcom/principles/environment/pdf/2017_environment_report.pdf</a> <a href="http://www.boeing.com/resources/boeingdotcom/principles/community-engagement/pdf/2017_global_engagement_portfolio.pdf">http://www.boeing.com/resources/boeingdotcom/principles/community-engagement/pdf/2017_global_engagement_portfolio.pdf</a> <a href="https://www.csrhub.com/CSR_and_sustainability_information/The-Boeing-Company">https://www.csrhub.com/CSR_and_sustainability_information/The-Boeing-Company</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Reduction of Product (Image 1) and Operations (Image 2) Greenhouse Gas Emissions:</b></p> <ul style="list-style-type: none"> <li>2016 Commitment to following two new global agreements adopted by the International Civil Aviation Organization (ICAO): <ol style="list-style-type: none"> <li>Airplane designs supporting a new fuel-efficiency performance standard for aircraft (ie. 787, 747-8, 737 MAX, and 777X).</li> <li>A global carbon offset program called Carbon Offset and Reduction Scheme in Aviation (CORSIA).</li> </ol> </li> <li>Research, development, and testing of sustainable aviation fuel: <ul style="list-style-type: none"> <li>In South Africa, Boeing partnered with South African Airways and low-cost carrier Mango to fly Africa's first flights powered by a 30 percent blend of biofuel produced from Solaris, a nicotine-free tobacco plant grown by farmers in Limpopo Province, South Africa.</li> </ul> </li> <li>Work with customers and industry groups on testing and demonstrating advanced, environmentally cleaner technologies (ecoDemonstrator flight test programs). <ul style="list-style-type: none"> <li>A 10 percent biofuel blend made from Brazilian sugar cane was used during all test flights. Scientific studies have shown that biofuels reduce life-cycle emissions by 50 to 80 percent compared with fossil fuel.</li> </ul> </li> <li>Improving the environmental footprint of Boeing's factories, offices and other facilities requires continually assessing and updating technologies and processes to reduce greenhouse gas emissions, water intake, and solid waste sent to landfills and the use of hazardous materials while increasing the use of environmentally progressive materials. <ul style="list-style-type: none"> <li>Boeing generated fewer greenhouse gas emissions, used less water, sent less solid waste to landfills and generated less hazardous waste—all reduced from 4 to 19 percent in 2016 compared to the baseline set in 2012—even with strong growth in production.</li> </ul> </li> </ul> <p><b>Energy Conservation:</b>  Boeing research in energy technologies and their application has grown in sophistication since the 1970s. Our work raises the bar on energy and resource efficiency standards.</p> <ul style="list-style-type: none"> <li>For the past 60 years, Boeing's wholly owned subsidiary Spectrolab Inc. has led the industry in solar-cell technology for both space-based and Earth-based applications.</li> </ul>

	<ul style="list-style-type: none"> <li>• Spectrolab is the largest continuously operating solar company in the world and the leading manufacturer of space qualified multi-junction solar cells and panels.</li> <li>• Boeing reduced absolute energy consumption in 2016 by enough to power 22,000 average US homes.</li> <li>• Over the past five years, as our commercial airplane production has increased by nearly 25 percent, our absolute energy use has decreased by 5.9 percent.</li> <li>• Achieved absolute energy reduction in 2016 of 802,000 mmbtu (million British thermal units).</li> <li>• Improved energy efficiency by 13 percent since 2012.</li> </ul> <p><b>Reduction of Solid Waste produced by operations:</b>  The Boeing strategy places priority on reducing the use of resources by designing processes to minimize or reuse materials. When that is not possible, we seek to recycle or compost those materials, or use them as an energy source.</p> <ul style="list-style-type: none"> <li>• Enhanced Recycling Program <ul style="list-style-type: none"> <li>○ The system is designed to divert up to 80 percent of waste from landfill or incineration.</li> <li>○ Now being used in locations that, added together, house more than 45 percent of our workforce.</li> </ul> </li> <li>• Boeing employs “roaming print” technology on 4,200 network office printers (and growing). <ul style="list-style-type: none"> <li>○ “Roaming print” technology at Boeing’s network printers reduces wasted paper by 800,000 sheets per year.</li> </ul> </li> <li>• Boeing Supplier Management is adding more stringent oversight to purchasing of nonproduction products and services. <ul style="list-style-type: none"> <li>○ This process change has resulted in a 35 percent reduction in orders processed.</li> </ul> </li> <li>• As we use more carbon fiber to develop lighter aircraft and reduce product emissions, we are finding ways to reduce excess material creation.</li> <li>• Boeing is also reducing materials through additive manufacturing. This is a process of creating an object by adding material, usually layer upon layer (like 3D printing).</li> </ul>
<p><b>Social Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<p><b>Commitment to future and education:</b>  Boeing is committed to inspiring and preparing the next generation of innovators. Boeing is harnessing the natural curiosity of young people through investments, partnerships and volunteerism to show them how science and engineering can help solve real-world problems.</p> <ul style="list-style-type: none"> <li>• Percent of charitable contributions devoted to education programs in 2016: 40 percent.</li> <li>• Amount invested to support teacher and school leader development in 2016: \$17M.</li> <li>• Number of education partners worldwide that received grant funding in 2016: 508.</li> </ul> <p><b>Continuing the mission, commitment to veterans:</b></p>

	<p>Our strong, capable men and women of the armed forces serve and protect our nation. And just as we are proud to support them on the front lines, we are also here to offer personal and professional network support and skill transition opportunities that ease the burden of the military-to-civilian transition process.</p> <ul style="list-style-type: none"> <li>• Since 2011, Boeing has hired and trained more than 7,800 veterans.</li> <li>• Boeing employs more than 20,000 veterans representing approximately 15 percent of the Boeing workforce.</li> <li>• The partnership with Goodwill Veteran Services and a \$95,000 grant from Boeing ensure the continued success of veterans' networking and hiring events.</li> <li>• Community business contributions to military and veteran programs since 2012: \$61M.</li> <li>• Boeing and its employees contribute more than \$12M annually in support to military and veterans' organizations and efforts.</li> </ul> <p><b>Commitment to Employees:</b> Over the past century, generations of talented Boeing employees helped build the world's largest aerospace company—and shaped the course of history along the way. The Boeing Vision is an expression of our company's purpose and values, designed to inspire and focus all employees on a shared future and to reaffirm that, together, we can meet the challenges that lie ahead.</p> <ul style="list-style-type: none"> <li>• \$600M in bonuses for employees based on exceeding financial performance levels set for 2017</li> <li>• Ethics and Compliance</li> <li>• Code of Basic Working Conditions and Human Rights</li> <li>• Diversity &amp; Inclusion</li> <li>• Employee Safety <ul style="list-style-type: none"> <li>○ GO 4 ZERO - One Day at a Time</li> </ul> </li> <li>• Employee Health and Wellness <ul style="list-style-type: none"> <li>○ Boeing on the Move</li> </ul> </li> </ul>
<p><b>Supply Chain Initiatives</b> <i>[2 or 3 with short description and outcomes]</i></p>	<p><b>Ensuring suppliers comply with global social justice issues:</b></p> <ul style="list-style-type: none"> <li>• The U.S. and other nations have regulations against the use of products made with conflict raw materials. <ul style="list-style-type: none"> <li>○ Boeing is a leader in working with government agencies and industry groups on ensuring compliance throughout the supply chain.</li> </ul> </li> </ul> <p><b>Ensuring suppliers comply with human rights issues:</b></p> <ul style="list-style-type: none"> <li>• Other human rights issues involving human trafficking and the use of child labor in manufacturing in many parts of the world. <ul style="list-style-type: none"> <li>○ Boeing trains its employees to be aware of conditions or situations that could indicate a lack of supplier compliance with laws protecting human rights.</li> </ul> </li> </ul> <p><b>Ensuring suppliers comply with environmental regulations including the use of hazardous chemicals and greenhouse gas emissions in products and manufacturing:</b></p> <ul style="list-style-type: none"> <li>• We require our suppliers to comply with all global, national and local laws that protect human rights, guard against human exploitation and protect the environment.</li> <li>• Boeing works closely with governments, suppliers and partners on setting industrywide standards.</li> </ul>

<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<ul style="list-style-type: none"> <li>Boeing rated #22 nationally (#40 globally) in Newsweek's 2017 Green Rankings List, which is a significant improvement from the previous year's rankings of #34 nationally (#65 globally). For comparison, Airbus SE ranked #15 on the list. Boeing received a score of 0 percent for Energy Productivity, which is defined as Revenue divided by total energy consumption less renewable energy consumption.</li> <li>The Seattle Times reported (Jan 16, 2017) of the long and difficult journey from racism to diversity for The Boeing Company. Up until World War II, the machinist union (known as IAM) did not recommend any other than members of the white race. Currently (as of 2017), some black employees find workplace reality at Boeing still falls short of the colorblind ideal.</li> <li>Immediately subsequent to the adversarial SPEEA union contract negotiations in early 2013, the Seattle Times published numerous articles detailing the impending cuts to white-collar jobs (beginning with jobs in IT support, defense, and Commercial Aviation Services) located in the Puget Sound region.</li> <li>Aviation Week reported Boeing cut its staff employees by at least 6% in 2017, or about 9,700 workers altogether, according to information the company provided in its latest annual regulatory filing.</li> </ul>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<ul style="list-style-type: none"> <li>From the CSR ratings (Image 3), one of the two special issues affecting Boeing is animal test user, which I had no inkling of. I learned that Boeing has joined with Noldus Information Technology to develop the Embedded Measures lab for studying situational awareness and fatigue. Did not find that this venture lab conducts animal testing; however, Noldus is involved with current ongoing animal behavior research projects.</li> <li>Considering the firsthand accounts that I've heard regarding the company's and its employees' concern for the environment, I believe Boeing has made great progress in transformation towards a greener company. Early in his career, decades ago, one employee witnessed scrap material and parts being discarded into the Duwamish River just outside of the Plant 2 Factory. Boeing conducted a multi-site cleanup effort to eliminate the most damaging PCB contaminants; however, I would still choose not to consume any of the fish caught from the Duwamish River.</li> <li>Last year, a significant number of offices adopted the Enhanced Recycling Program, which replaced the normal trash bins at each desk with a 20 ounce trash cup. I recall grumbling and mockery of the new desktop garbage bins at the time; however, there is no doubt that it gives employees pause when they are discarding rubbish. The single large trash bins in the common break areas have been replaced with three (one for compost, one for recycle, and one for landfill), which is also an improvement; however, I still notice that not all are onboard with proper/careful selection and separation. Regarding the "Roaming print" technology, it is something that I've adopted and find it very easy to use; however, I notice that there are still a significant number of employees that have not set it up and do not currently use.</li> <li>Regarding its social initiatives, I think that the company is currently making strong efforts to improve; however, in my experience I see a large part is dependent on the executive leaders and the direction which they want to take the company. Some of the leaders value the goodwill of its employees more than others. Since beginning the MBA program at Seattle University,</li> </ul>



I have learned that employee reductions can be the easiest and most effective (as well as short-sighted) way to reduce costs; however, it comes at the price of losing the invaluable experience (too often not fully considered) of the employees that are let go.

- Based on the high production quality of the company's annual environmental and social initiatives reports, they appear as if they are supplements to Boeing's Annual report, with the targeted audience of investors and analysts. Not surprisingly, these reports include the single-sided positive spin of the company, so my feelings really did not change after reading. Regarding the critical views of Boeing and its actions, I was interested to learn that Airbus ranked higher on Newsweek's 2017 Green Rankings List. I was surprised that Boeing was not rated on its energy productivity, considering its achievements detailed in its environmental report.

Image 1

#### Global Aviation Commitments

2010	2020	2050
1.5% per year fuel efficiency	Carbon-neutral growth	-50% CO <sub>2</sub>
↓	↓	↓
Average 2.4%* from 2009–2014	CORSIA pilot program to begin in 2020	Airplane technology, sustainable fuels, operational efficiency

\*Air Transport Action Group

Image 2

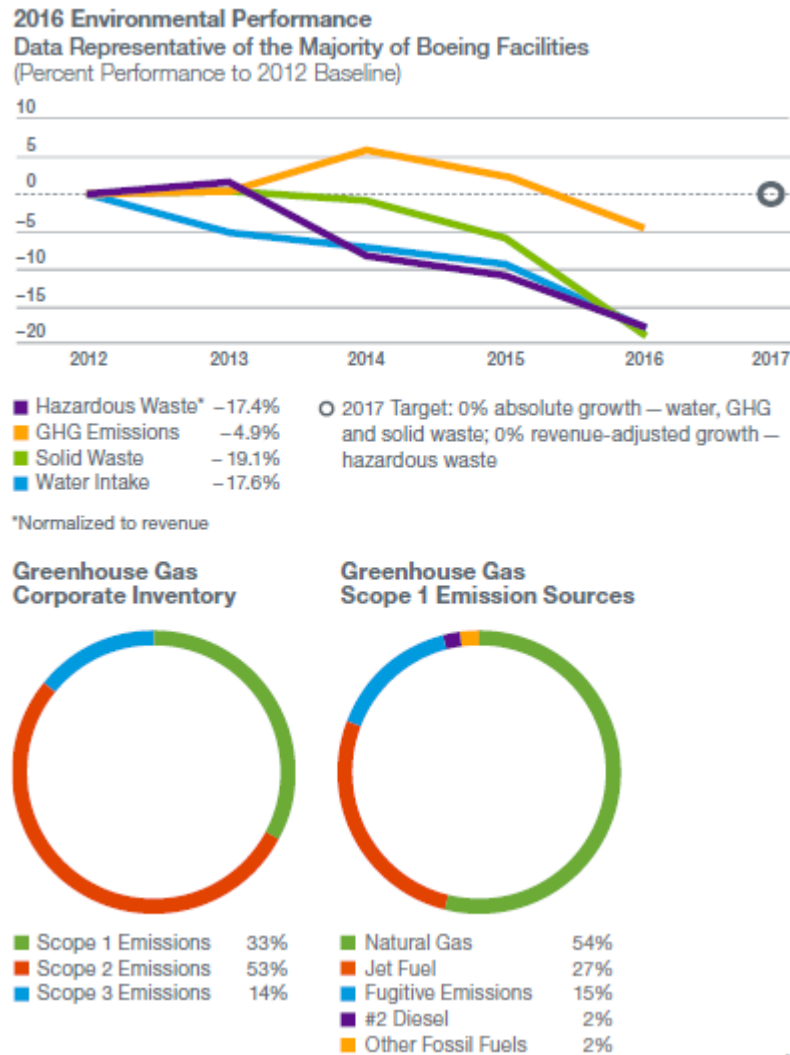
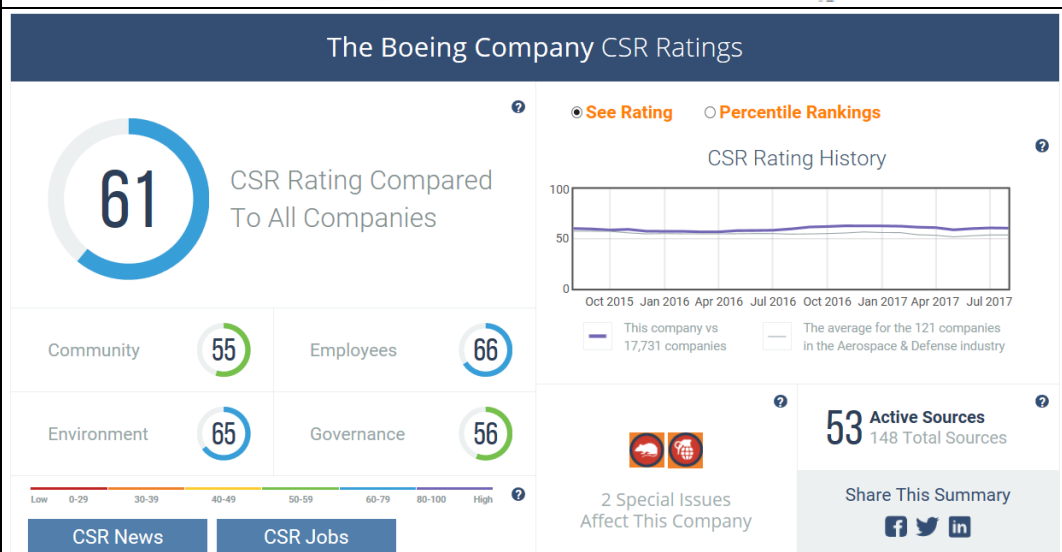


Image 3  
(optional)



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Borbala Sung
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Chevron Corporation 2016 Corporate Responsibility Report 36 pages <a href="https://www.chevron.com/-/media/shared-media/documents/2016-corporate-responsibility-report.pdf">https://www.chevron.com/-/media/shared-media/documents/2016-corporate-responsibility-report.pdf</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>1. Chevron is recognizing that climate change is a global issue and that the use of fossil fuels contributes to the increasing concentration of greenhouse gases. As an attempt to help manage the issues that add to the climate change, Chevron initiated a project in Australia that involves the design, construction and operation of facilities to reduce the annual greenhouse gas emissions by as much as 4 million metric tons per year.</p> <p>2. Chevron is trying to use the lowest quantity of fresh water possible in its operations, and reuse the water where is applicable. They are trying to use brackish water instead, water that can't be used for human consumption or agricultural usage. At their Texas plant, Chevron uses brackish water instead of fresh water. More than 90 percent of the water resource used is coming from brackish sources.</p>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>1. Chevron employs a large number of contractors on all of their plants. They manage up to 177,000 contractors on any given day. They pride themselves on having a culture that puts safety first. At their plant in Kazakhstan, during one of the largest scheduled maintenance that lasted over 40 days, they reported zero days away from work injuries among 8,800 workers.</p> <p>2. In the U.S, Chevron spent over \$570 million with woman and minority owned businesses. The company has been awarded as one of America's Top Corporations for Women's Business Enterprises for providing growth opportunities to women business owners.</p>
<b>Supply Chain Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p>1. Chevron has developed a cargo carrier that is technologically advanced and helps carry the products more safely from one point to another. In Japan, Chevron expanded its fleet of liquefied natural gas carriers that safely deliver cargoes to customers.</p> <p>2. Chevron developed and implemented a program called WellSafe, that assures that well and reservoir fluids are under control and not released in the surrounding areas, impacting the environment and the people living in it. Chevron assigned a special group that is responsible to verify that all business units get and maintain their certification.</p>

<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>According to articles posted by LA Times, NY Times, The Guardian, Business-Human Rights, Chevron has been in court battles for over 8 years with Ecuadorian government over compensation issues. Chevron was drilling for oil in Ecuador and after the contract ended, they withdrew and started cleaning up the area, but crude oil started to seep out of abandoned pits into the river, causing a lot of damage and health issues for the population in the area. Chevron was requested to pay damages for Ecuador for the environmental issues, but Chevron instead filed a lawsuit against Ecuador, and blamed the local government for the problems. The lawsuit was dragged on for over 8 years and Chevron demanded \$9.5 billion dollars in compensation, which equals to one third of Ecuador's annual budget.</p> <p><a href="http://www.dw.com/en/a-slippery-decision-chevron-oil-pollution-in-ecuador/a-18697563">http://www.dw.com/en/a-slippery-decision-chevron-oil-pollution-in-ecuador/a-18697563</a></p> <p><a href="http://www.latimes.com/business/la-fi-chevron-ecuador-20160808-snap-story.html">http://www.latimes.com/business/la-fi-chevron-ecuador-20160808-snap-story.html</a></p> <p><a href="https://www.theguardian.com/environment/2016/apr/26/ttip-chevron-lobbied-for-controversial-legal-right-as-environmental-deterrent">https://www.theguardian.com/environment/2016/apr/26/ttip-chevron-lobbied-for-controversial-legal-right-as-environmental-deterrent</a></p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>The contradictory news about Chevron does not surprise me. Many of the large oil companies have been known to be less responsible or considerate with the environment they are operating in. Although Chevron has been trying to become more responsible, and implement more programs that help reduce the damage their operations can at times create, it has a long way to go to be considered a socially responsible company. However, I was pleasantly surprised by the large sum that the company was investing in women owned businesses. As a large company, often with more economical power than many governments, Chevron has a responsibility to its employees and the environment it operates to align their business values and business purpose with their social and environmental activities.</p>

Image 1

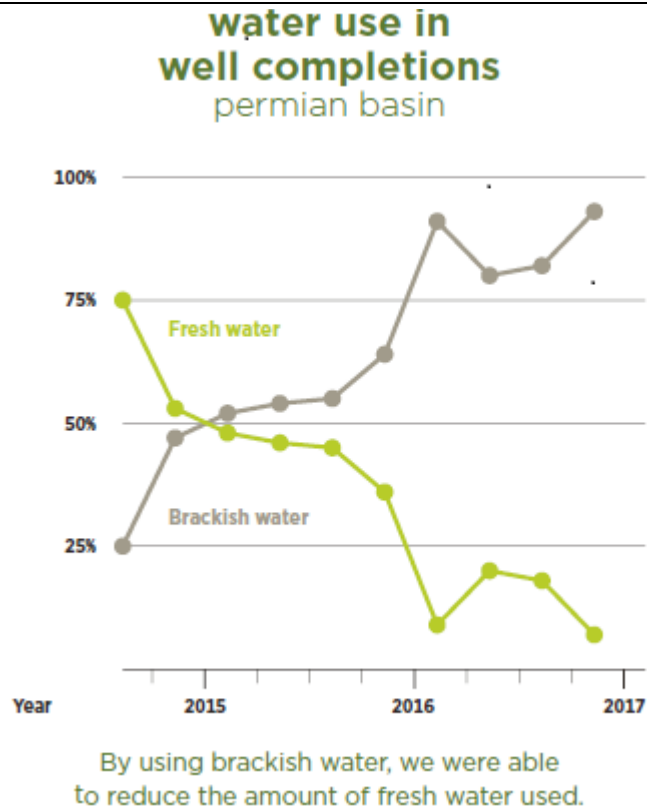
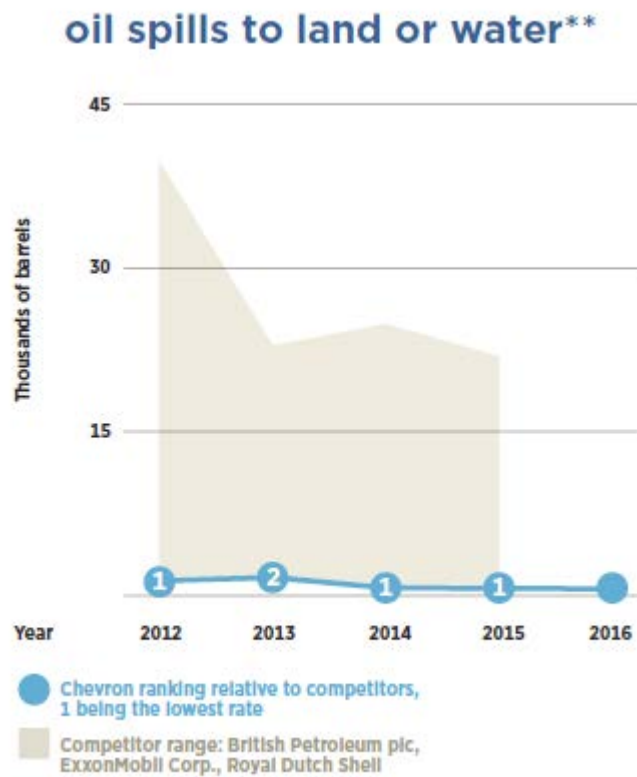
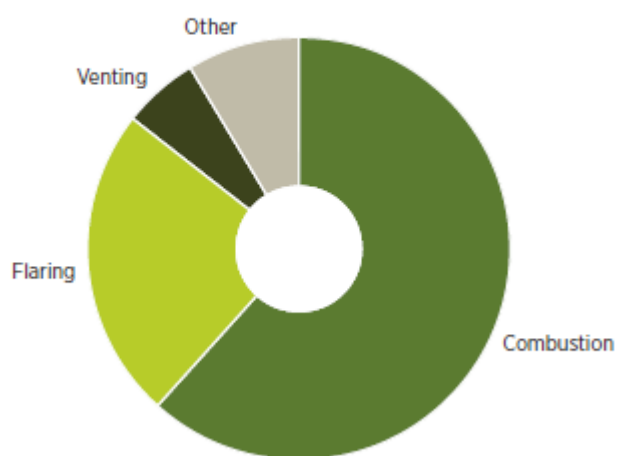


Image 2



**2016 GHG emissions by source\***  
66 million metric tons

Image 3  
(optional)



## MBA 5230 | Sustainability in Operations & Supply Chain Report

<b>Your Name:</b>	Yang Su
<b>Company:</b> <b>Report Year:</b> <b>Length:</b> <b>Link:</b>	Huawei 2016 102 <a href="http://www-file.huawei.com/-/media/CORPORATE/PDF/Sustainability/2016-Huawei-sustainability-report-en-v2.pdf">http://www-file.huawei.com/-/media/CORPORATE/PDF/Sustainability/2016-Huawei-sustainability-report-en-v2.pdf</a> <a href="http://www.huawei.com/en/about-huawei/sustainability/environment-protect">http://www.huawei.com/en/about-huawei/sustainability/environment-protect</a>
<b>Environmental Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Carbon Footprint:</b></p> <ol style="list-style-type: none"> <li>1. Huawei encourage suppliers to audit the energy usage. They want to develop the environment with low emissions and efficiency energy using. In 2016, 20 suppliers together reduced carbon dioxide emissions by 55000 tons.</li> <li>2. Huawei establishes the Green Partner Program to ensure the product contained no banned chemicals. The company uniforms the supply chain to make it reach the environmental protection level. In 2016, Huawei certified 11 suppliers as Green Partners</li> </ol> <p><b>Production:</b></p> <ol style="list-style-type: none"> <li>1. Huawei built an environmental product lifecycle that uses recyclable material, reduce packaging size and low power design. The company increased the energy efficiency of major products by 23%, reduced carbon emissions per unit of sales revenue by 20.6% and 60% of products packages are green packaging reduced the use of wood product by over 123000 <math>m^3</math>.</li> </ol>
<b>Social Initiatives</b> <i>[2 or 3 with short description and outcomes]</i>	<p><b>Worker's right and working environment:</b></p> <ol style="list-style-type: none"> <li>1. Huawei provides fair opportunity to the employee by the "Contribute and Share" bonus distribution system. Employee are able to be promoted or gain bonus related to their performances. Also, Huawei cares about the employee physical and psychological health. iHealth Center is the top priority which ensure employees' health.</li> <li>2. Huawei creates a relaxing and efficient working environment and favorable workplace. Employees has the right to give manager feedback.</li> <li>3. In 2016, Huawei has invested CNY 11.2 billion in employee benefits.</li> </ol> <p><b>Creating opportunities:</b></p> <ol style="list-style-type: none"> <li>1. Huawei boosts ICT (Information and Communications Technology) adoption and trained over 20000 students from 32 countries with over 8000 of these students gaining formal certification with ICT skills.</li> <li>2. Huawei gave college students from 96 different countries and regions around the globe and opportunity to visit their headquarters, undergo training and gain first-hand experience in the ICT industry</li> </ol>

<p><b>Supply Chain Initiatives</b>  <i>[2 or 3 with short description and outcomes]</i></p>	<p><b>Expand joint audits and increase supply chain Transparency:</b></p> <ol style="list-style-type: none"> <li>1. Huawei and three customers carried out onsite audits on ten suppliers, and we shared audit results with customers.</li> <li>2. Huawei and Deutsche Telekom held a joint workshop on Creating Value for Business Through CSR and Sustainable Development, where industry experts, customers, and suppliers discussed business model innovations that could result in a more sustainable supply chain.</li> </ol> <p><b>Enhancing cooperation with suppliers:</b></p> <ol style="list-style-type: none"> <li>1. Huawei reviewed 57 potential suppliers in terms of their sustainability performance, and the 12 suppliers that failed the review were denied the opportunity to cooperate with Huawei.</li> </ol>
<p><b>Other Voices</b>  <i>[What do others have to say about the company? Corroborate? Contradict?]</i></p>	<p>As a third largest smartphone brand in the world, Huawei made it success by the company's culture. Beside the companies held by government in China, Huawei is the first one in the top 500 companies in the world. Even Huawei was successful in Asian and European market, US market is still a new challenge to the company.</p> <p>Wall Street judges Huawei by spy concern. Huawei developed the CPU and chips by its own technology. Most of the core technology chips in United States are uniformed. Huawei is closed to some military companies in China.</p> <p>UK government board said the cell is part of Huawei in Oxfordshire ensuring its own technology cannot be compromised for nefarious purpose.</p>
<p><b>Personal Reaction</b>  <i>[New perspectives? Any surprises? To other voices?]</i></p>	<p>I am not a long-time consumer of Huawei but I know the company for a long time. Huawei has a success in radio area. Smartphone is not the first priority product in its industry at the beginning. Just in a few years, Huawei has its own technology in the smartphone field and has the ability to compete with Apple and Samsung. Smartphone technology in China is behind US. However, Huawei catches up with Apple. Surprisingly, Huawei focus on emissions reduction from the start and create an appropriate working condition. The suppliers were asked to do the energy usage measurement and meet the Huawei standard. Huawei commits to keep the environmental product lifecycle.</p> <p>I understand the concern about Huawei. The technology is held by Huawei and the company could get the information easily. However, the same situation would happen to Apple in Chinese market. Less experience in US market is a huge shortage for Huawei.</p> <p>I am surprised that Huawei keep focus on environmental protection and worker's benefits. Many Chinese companies I know are put the environmental problem and worker treatment in the second place. Since the competition in China is fierce so companies put the profit and position in the market in the first place.</p>



Image 1

Increasing Energy Efficiency in R&D Labs

Some of our first R&D labs were scattered in different places, and their air conditioners and power systems were inefficient, with an average power usage effectiveness (PUE) as high as 2.5.

To increase energy efficiency and reduce carbon emissions, we built large centralized labs in the Chinese cities of Dongguan, Langfang, and Chengdu. Leading technologies and facilities – such as free cooling, separation of hot and cold air conduits, and efficient power supply cabinets – reduce lab PUE to below 1.5 and make the labs 40% more energy

efficient. As a result, our labs are able to save 71 MWh of electricity every year, equivalent to a CO<sub>2</sub> emissions reduction of over 65,000 tons.

**65,000** tons  
of CO<sub>2</sub> emissions avoided



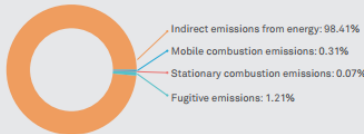
Large centralized labs with higher energy efficiency

Image 2

GHG Emissions by Type

Type of GHG	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFC <sub>s</sub>	PFC <sub>s</sub>	SF <sub>6</sub>	Total Emissions (Unit: Ton)
Emissions (t-CO <sub>2</sub> e)	1,566,199	6,641	40	12,489	0.00	0.00	1,585,369
Proportion	98.79%	0.42%	0.003%	0.79%	0.00%	0.00%	100.00%

Proportion of Each Scope's GHG Emissions



Note: Scope 1 includes stationary combustion emissions, mobile combustion emissions, and fugitive emissions.  
Scope 2 includes indirect emissions from energy.

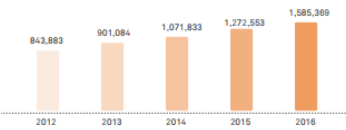
In 2016, the GHG emissions of our China Region operations totaled 1,585,369 tons, an increase of approximately 24.5% from 2015.

This increase is attributable to two factors. First, our business grew significantly, with annual revenue increasing to CNY 521 billion, up 32% from 2015. Second, we expanded our building facilities.

In 2016, our CO<sub>2</sub> emissions per unit of sales revenue were 3.04 tons per million RMB, 20.6% lower compared to the benchmark year.

CO<sub>2</sub> emissions per unit of sales revenue down by  
**20.6%**

Total GHG emissions from 2012 to 2016  
Unit: ton



Intensity of GHG emissions from 2012 to 2016  
Unit: ton/million RMB

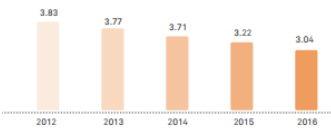


Image 3  
(optional)

### Family Day

Since 2009, every department within Huawei holds an annual Family Day event, which has become a key activity for our employees and their families. It is a day that brings together the work of employees, the development of the company, and the happiness of families into one cohesive whole.

Activities include parent-child games, artistic performances, delicious buffet meals, and more. By touring the company offices, canteens, and product showrooms, family members can gain a better understanding of the company. In 2016, over 27,000 employees and their family members participated in Family Day events.



Family Day in Huawei Nigeria



Parent-child games