


Winter 12-15-2018

Triple Bottom Line as a Method to Increase Business Value and Foster Positive Social and Environmental Change

Jayleene West
jayleenewest@gmail.com

Follow this and additional works at: <https://repository.usfca.edu/thes>

 Part of the [Earth Sciences Commons](#), [Marketing Commons](#), [Natural Resource Economics Commons](#), [Natural Resources and Conservation Commons](#), [Natural Resources Management and Policy Commons](#), [Nonprofit Administration and Management Commons](#), [Operations and Supply Chain Management Commons](#), [Other Business Commons](#), [Psychology Commons](#), and the [Sustainability Commons](#)

Recommended Citation

West, Jayleene, "Triple Bottom Line as a Method to Increase Business Value and Foster Positive Social and Environmental Change" (2018). *Master's Theses*. 1205.
<https://repository.usfca.edu/thes/1205>

This Thesis is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Theses by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact repository@usfca.edu.

This Master's Project

**TRIPLE BOTTOM LINE AS A METHOD TO INCREASE BUSINESS VALUE AND
FOSTER POSITIVE SOCIAL AND ENVIRONMENTAL CHANGE**

by

Jayleene M. R. West

is submitted in partial fulfillment of the requirements
for the degree of:

**Master of Science
in
Environmental Management**

at the

University of San Francisco

Submitted: 12/6/18

Received:

.....
Jayleene M. R. West Date

.....
Gretchen C. Coffman, Ph.D. Date

Table of Contents

1. Abstract.....	1
2. Introduction.....	2
3. Methods.....	4
4. Outcomes.....	5
4.1 Business Value-----	5
4.2 Environmental Value-----	8
4.3 Social Value-----	9
4.4 Challenges-----	11
5. Case Studies.....	12
5.1 Seventh Generation-----	12
4.1.1 Overview.....	12
4.1.2 Environmental Concerns and Benefits.....	12
4.1.3 Social Concerns and Benefits.....	13
4.1.4 Business Outcome.....	14
5.2 New Belgium Brewing-----	15
4.2.1 Overview.....	15
4.2.2 Environmental Concerns and Benefits.....	15
4.2.3 Social Concerns and Benefits.....	16
4.2.4 Business Outcome.....	17
5.3 Patagonia-----	18
4.3.1 Overview.....	18
4.3.2 Environmental Concerns and Benefits.....	18
4.3.3 Social Concerns and Benefits.....	20
4.3.4 Business Outcome.....	21
5.4 Ben & Jerry's-----	21
4.4.1 Overview.....	21
4.3.2 Environmental Concerns and Benefits.....	22
4.3.3 Social Concerns and Benefits.....	24
4.3.4 Business Outcome.....	25
5. Summary and Recommendations.....	25
5.1 Summary-----	25
5.2 Recommendations-----	28
5.2.1 Case Study Recommendations.....	28
5.2.2 Recommendations for Implementing the TBL.....	30
6. Literature Cited.....	33
7. Appendix A.....	58
8. Appendix B.....	62

Table of Figures

Figure 1. Venn diagram representation of the Triple Bottom Line (Lozano 2008).....	42
Figure 2. Triple bottom line company outcome-based success criteria (Jayleene West 2018).	43
Figure 3. Internal marketing process leading to increased productivity and customers (Luigi et al. 2013).....	44
Figure 4. Seventh Generation cradle to grave MT CO ₂ e emissions from 2012-2017 with and without carbon offsets and renewable energy credits (Seventh Generation 2017).....	45
Figure 5. United States and Seventh Generation female to male earnings ratio (Seventh Generation 2017).....	46
Figure 6. Seventh Generation employee metrics from 2013 to 2017 (Seventh Generation 2017).....	47
Figure 7. New Belgium Brewing GHG emissions by scope (New Belgium 2018a).....	48
Figure 8. New Belgium Brewing Philanthropy Donations Pie Chart (New Belgium 2018a).....	49
Figure 9. New Belgium Brewing Energy Pyramid. Similar to the food nutrition pyramid, New Belgium ranks its programs in terms of importance (New Belgium 2018d).....	50
Figure 10. Ben & Jerry's 2017 carbon emissions by sector (Ben & Jerry's 2018c).....	51
Figure 11. Ben & Jerry's plan for on-farm carbon reduction projects from 2014 to 2025 (Ben & Jerry's 2018c).	52
Figure 12. Diagram and benefits of small-scale digesters on agricultural farms (Spuhler 2018).....	53
Figure 13. Ben & Jerry's 2014 Life Cycle Analysis from Farm to Spoon Carbon Emissions	54
Figure 14. Social equity initiatives as outlined by Ben & Jerry's (Ben & Jerry's 2018c).....	55
Figure 15. Outcome-based scoring matrix of all four case studies (Jayleene West 2018).	56

Table of Tables

Table 1. Seventh Generation's environmental baseline, progress, and 2020 goals. Table modified from (Seventh Generation 2017)	40
--	----

List of Acronyms

CFP – Chemical Footprint Project

CO₂ – carbon dioxide

CO₂e – carbon dioxide equivalent

FSC – Forest Stewardship Council

GHG – greenhouse gas

LCA – lifecycle analysis

MT – metric tons

NGO – nongovernmental organization

PCR – post-consumer recycled plastic

PTO – paid time off

PwC - PricewaterhouseCoopers

SRI – socially responsible investment

TBL – triple bottom line

UK – United Kingdom

VOCs – volatile organic compounds

1. Abstract

The Triple Bottom Line (TBL) business model has transformed the business world by changing the way businesses operate. By focusing on the people and the environment, businesses have grown to see substantial profit and avoid risks along the way. Companies are using the TBL to build their brand and customer loyalty by enhancing the environment and society. This paper analyzes four companies that are leaders in their industry and are founded on the TBL; Seventh Generation, New Belgium Brewing, Patagonia, and Ben & Jerry's. Recommendations have been made by performing a literature review on the advantages and disadvantages of the TBL, and by studying the companies in a case study fashion. Both Seventh Generation and Patagonia are lacking strong social missions, while New Belgium Brewing and Ben & Jerry's both have strong environmental and social missions. Additionally, Patagonia must benchmark their emissions in order to successfully reduce their impact on the environment. All companies were able to increase investor attraction by reducing risk, create a sustainable product, provide fair working conditions, and provide their employees with a volunteer program. Altogether, the outcomes of each business have had a beneficial impact on the environment and society, while boosting sales and brand recognition.

2. Introduction

Today, the world faces chronic public issues including poverty, inequality, and the increasing threat of climate change (Maak and Pless 2009). These issues cannot be adequately solved by governments and nonprofits alone. Government budgets are constrained and thus lack the necessary resources to face these problems. Nonprofits rely on charitable funding which often leads to the inability to retain talent or adapt to new challenges (Honeyman 2014). According to The Guardian, sixty-nine of the 100 largest world economies are corporations (Inman 2016). This means corporations have become even more wealthy than entire countries. For this reason, many argue the responsibility of facing the world's public challenges no longer lies with governments and nonprofits alone, but is also the responsibility of businesses (Heap 2000, Maak and Pless 2009).

In today's economic market, it has become increasingly important to stakeholders and shareholders that companies uphold good values and go beyond achieving social and environmental responsibility (Maak and Pless 2009). Customers like to see their values reflected in a company with which they do business and shareholders want to avoid risk of losses from the company in which they invest. On the other hand, being socially or environmentally negligent can result in massive stock losses as witnessed by Nike's sweatshop controversy in 1999, resulting in a total loss of \$129 million (Rock 2003). Also, British Petroleum's (BP) oil spill in 2010 caused a net loss of \$61 billion to BP and \$17 billion to its partners (Esty and Simmons 2011; Lee and Garza Gomez 2012). Scandals such as these can be detrimental for some companies, however it opens a door for other companies to take a strategic leap by developing good practices leading to an increase in their stock. As Nike's stocks were dropping after their scandal, its competitor Reebok saw an opportunity to implement anti-sweatshop practices leading to a 26% increase in share price in just one year (Ducevich 2001; Rock 2003).

Not only do good company values attract customers and prevent losses, but it also can aid in the attraction of quality employees while also retaining them. Goldman Sachs, a multinational investment bank, found that the Millennial Generation is most interested in working for businesses that align with their personal values and advised that companies need to offer more than just the financial gain that attracted the past generations (Honeyman 2014). A company with strong ethical values that gives back to the community offers a sense of purpose, which is a large motivator for

employees (Honeyman 2014). Furthermore, increased employee retention can save companies hundreds of thousands of dollars a year on training costs, further adding to business value (Honeyman 2014).

With the aforementioned benefits in mind, businesses have increasingly begun to adopt tactics to assess their social and environmental impacts and add them to their core business values. While some businesses adopt these practices after being in the market, other businesses have established their company based on these values. Businesses that focus on profits, people, and the planet are often referred to as Triple Bottom Line (TBL) businesses (figure 1). The TBL can act as an effective business framework that increases business value. Yet, unlike the conventional bottom line, the TBL does not only focus solely on profit but it also prioritizes the social and environmental performance of the business (Glavas and Mish 2015; Hammer and Pivo 2017). Social performance typically includes evaluating how employees, customers, and the community in which the business operates are benefiting from the company and ensuring they are being treated fairly (Longoni and Cagliano 2018). Some examples include having paid employee volunteer programs, offering severance packages, and partnering with or donating to charities. Environmental performance is evaluated based on the sustainability of business practices and products, in addition to the reduction of natural resource consumption and greenhouse gas emissions (Longoni and Cagliano 2018). Ultimately, the aim is to operate ethically by being socially and environmentally responsible while increasing economic growth consistently over time (Glavas and Mish 2015; Longoni and Cagliano 2018).

Many business executives believe sustainability and social responsibility decreases profits. Yet, these sustainable and socially responsible business practices actually have the ability to decrease costs and increase sales. The problem many business leaders face is their focus on short-term instead of the long-term profits and costs, but there are many opportunities for TBL businesses to have beneficial effect on the environment and people while also creating business value. For example, in the short-term it might be most economical to buy inexpensive light bulbs but in the long-term the more expensive energy efficient lighting can save a company thousands of dollars a year in energy costs. Likewise, donating to a local charity is an up-front cost in the short-term but in the long-term this act has the potential to attract more customers and increase sales. Furthermore, risk reduction is a major outcome of a company that successfully meets their

TBL. By upholding higher standards than the typical business, TBL companies can preemptively mitigate prospective risks (Clark et al. 2015). Companies are more marketable to investors when they are low risk. Ultimately, by prioritizing three bottom lines, the TBL provides a company a solid foundation to achieve a competitive advantage, satisfy the demands of stakeholders while creating positive change, simultaneously. The purpose of this study is to analyze four TBL companies that are leaders in their industry, identify which characteristics have attributed to their success, and offer recommendations on areas of improvement.

3. Methods

The focus of this project was to examine the business practices of TBL companies as a tool for managing the environment and aiding society, and evaluate the key attributes which contribute to their successes. In the first step, I conducted a literature review to understand TBL advantages and disadvantages and to identify opportunities to increase beneficial impact in all three sectors (people, planet, profit). The literature review consists of environmental journals, business journals, business sustainability books, and the B Corp Handbook. Next, I created a framework to evaluate four TBL companies in a case study process. I selected four companies based on their mission and status in their industry: Seventh Generation, New Belgium Brewing, Patagonia, and Ben & Jerry's. These companies were selected due to their longevity, stability, the fact that they were leaders in their industry, run their business based on the TBL, and are all certified B Corporations. Additionally, each company has different environmental and social missions that allowed for diversity within this study. Through these case studies, I summarized actions taken by these companies to improve the environment and the community, described the outcomes of their approaches, and determined key attributes that contributed to these outcomes. I compared the results of the case studies to produce recommendations on areas to improve.

I developed an outcome-based scoring matrix to quantify the qualitative characteristics of these businesses which will act as relative measures of success (figure 2). Outcomes were categorized based on business, environmental, and social value benefits. The components under each section aided in scoring each business. Certain benefits are weighted more heavily than others based on integrated factors in accordance with the results from my literature review. I evaluated the score given to each business, in reference to the outcome-based matrix, using subjective judgement upon completion of each case study. The only detrimental outcome assessed within this study was the

uneven distribution of TBL pillars and results in a one-point subtraction per pillar, and up to a three-point deduction within the scoring structure. The maximum points that can be received is 20.

This scoring matrix does not offer a comprehensive evaluation of the four case studies as there are factors not covered in this matrix, that may be attributable to the success of these companies. Instead, the scoring matrix will serve as an assessment tool intended to evaluate the success of each business based on a consistent and fixed set of criteria.

4. Outcomes

4.1 Business Value

Traditionally, common business practices focused solely on short-term profits that are based on cause and effect relationships. However, if owners want a business to grow and thrive in the market today, it is more strategic to create a vision that extends beyond this reductionist view and looks into the long-term (Etsy and Simmons 2011). The TBL outlines a framework that looks at long-term sustainable development (Glavas and Mish 2015; Longoni and Cagliano 2018). Not only does it have a long-term vision, but the TBL also considers that not everything has a cause and effect relationship. Instead, by taking into consideration all three pillars, business owners are able to gain an in depth understanding of the dynamic and complex way the three pillars interact with each other (Lozano 2008). This knowledge gives decision makers an advantage in solving problems within their company and community, which can ultimately lead to adding innovation and long-term business value.

The key to a lasting TBL company with long-term profit is the potential for long-term benefit. TBL businesses have the ability to change their communities for the better and provide the capital needed for environmental investments. Businesses that embrace all three pillars are instrumental for answering the problems we face today. But, it is imperative that those businesses be stable and lasting, as this will have the greatest effect on solving these environmental and societal problems.

To ensure longevity, company executives need to reduce risks wherever they can. One of the biggest risks for many companies, especially those who handle heavy metals, oil, or toxic chemicals, are environmental and social risks (Etsy and Simmons 2011). Most environmental and social risk-associated costs come in the form of product recalls, accidents, legal liability, and regulatory violations (Etsy and Simmons 2011). Slight mishaps can turn into immensely, costly

situations. Not only did the BP oil spill lead to billions of dollars lost in fines, as mentioned earlier, but it also led to the end of the CEO's executive career. Furthermore, risk management should not only include the company's internal operations, but should also consider exposure in the supply chain as well as when the customer themselves use the product. For example, even though the Chicago Police Department, and not the United staff dragged a passenger off a plane due to overbooking on United Airlines' part, United Airlines still suffered a boycott and immense backlash in 2017 (Steinbuch 2017).

Although extended risk exposure cannot be eliminated, it can certainly be reduced if companies have the right strategies in place. Social and environmental risks that would normally be overlooked are identified and addressed by TBL. Like any business that monitors profit, TBL companies monitor social and environmental progress as well. In environmental and social risk management, the first step is identifying which issues the company creates or may create due to the type of industry. Once the problem is identified, it can be addressed. Problems can often turn into opportunities if innovative solutions are crafted; if one company manages a problem better than another, then it gains a competitive advantage (as seen with Nike and Reebok) (Etsy and Simmons 2011). What is most common with TBL companies is that they have a clear-cut vision of what issues they want to address and then they mold it into their company values.

Once the environmental and social issues are identified, companies can begin to prioritize them through benchmarking. Benchmarking is a great tool for businesses as it analyzes different aspects of sustainability. From this analysis, measurements can be made in the form of a baseline and compared against to evaluate progress. Benchmarking through sustainability analyses or by comparing against what other companies are doing can assist in creating a sustainability action plan (Etsy and Simmons 2011). Additionally, benchmarking can further identify areas of concern. To ensure sustainability initiatives are carried out according to plan, the company's vision needs to be aligned with those initiatives, which is what makes TBL so efficient in confronting these issues. In doing so, these initiatives become part of the foundation of the company as an element of core strategy. As a result, management ensures it is not overlooked and objectives are more likely to be met (Etsy and Simmons 2011).

Another advantage TBL companies have over traditional businesses is that TBL companies typically go beyond basic risk management. Their environmental and social initiatives cover the

basics like ensuring ethical practice within the company and supply chain, as well as having a sustainable product. TBL companies usually have a specific and defined mission targeting each of the three pillars that is supplemental to basic risk management. This makes TBL companies more attractive to investors as they have the least amount of risk (Clark et al. 2015).

Forward thinking executives recognize the advantage and importance of investing in people and the environment. Current trends are increasingly favoring the implementation of social and environmental aspects in daily business routine. Unilever, one of the largest consumer goods companies, has a core mission to double its revenue by 2020 (Unilever 2017). Unilever's core mission is not directly profit; they plan to achieve their sales goal through reducing their footprint and accomplishing their social missions. Their strategy is that by giving consumers what they want, by providing sustainable products, increasing opportunities for women, and reducing their footprint, they will increase their sales. Furthermore, about 76% of CEOs that took part in PricewaterhouseCoopers's (PwC) 2017 Annual Global CEO Study agreed that it is important for their business to satisfy societal needs and protect future generations (PwC 2017). This is up 30% from the year prior, demonstrating more executives are becoming increasingly aware of the business values that the TBL model creates.

There are direct costs savings that can be realized as a result of sustainable and social initiatives derived from quantifying and benchmarking each bottom line. In the process of benchmarking many areas of improvement can be identified. Once all energy, water, and waste activity are measured, strategies can be created to reduce costs (Etsy and Simmons 2011). This includes reducing operating costs with energy efficiency opportunities, water consumption reductions, or decreasing waste-related costs in buildings and facilities. For example, in 2012 Walmart saved \$231 million through efficient waste and recycling management, and an additional \$150 million through energy efficiency programs in 2013 (Clark et al. 2015). Additionally, by increasing resource productivity and reducing energy intensity, more potential savings can be realized. These costs can be reduced internally as well as throughout the supply chain once proper analyses are conducted. Once reductions have been made to operate more efficiently, dissecting the types of chemicals used to create the product is the next step. The use of toxic chemicals can be costly as it comes with associated fees and requires compliance with regulatory paperwork and

adherence to disposal responsibilities. Creating a safer product with the use of alternative chemicals could ultimately become another route that saves the company money.

Direct cost savings found during benchmarking can also lead to revenue growth. By creating more sustainable and safer products, the product can be sold as environmentally superior alternatives than other brands on the market. This type of market differentiation can drive in new customers and add to customer loyalty, ultimately bringing in more sales. Not only will customers be drawn in, but talent will as well. Internal marketing for sustainability can also drive productivity in employees. Sustainability has the ability to encourage employee engagement, commitment, and motivation, leading to increased customer sales by higher productivity internally (figure 3) (Luigi et al. 2013). Higher engagement by employees results from aligning with the values of employees, thus creating a cycle of increased employee satisfaction and customer sales.

4.2 Environmental Value

As the stresses of climate change increase, forest fires will occur more frequently, as well as more severe droughts, which will have a direct effect on water security. Pollution and water consumption have already caused detrimental effects on water availability (United Nations 2018). Together, both stresses have left 3 out of 10 people without access to safe drinking water. Climate change is exasperated by increased GHG emissions making energy usage a key target to reduce. Additionally, the effects of climate change include increased hurricanes and variability in temperature and precipitation which will harm crop production that is critical to beer quality, the apparel industry, as well as the food industry (New Belgium 2018a).

The environment can benefit exponentially from TBL businesses compared to traditional business methods that are leading forces in environmental devastation in the past. The TBL sheds light on the areas of the company that can be more sustainable. Energy efficient lighting and decreased energy consumption has double the value as it saves money and also decreases pollution and GHG emissions. Furthermore, by changing manufacturing or design of their products, companies have the ability to influence millions of customers that rely on their products. The environmental mission can be shared with customers and also educate them about the pressing environmental issues faced today.

As more customers demand sustainable products, TBL companies can change the industry standards. Companies that form a competitive advantage with the environmental initiatives may

encourage other companies to follow suit by demonstrating sustainability as constructive engines of economic growth (Etsy 2017). Additionally, companies that extend their impact into their supply chain and demand more sustainable operating techniques also have the ability to influence behavioral changes within the supply chain.

Focusing on creating more sustainable products may also lead to innovative technological breakthroughs and more sustainable products. These breakthroughs can create value and further reduce costs in a low carbon economy, while also making a business case for the TBL. From an environmental perspective, these breakthroughs can be greener alternatives for what is currently in the market. For example, Phillips has implemented multiple sustainable products innovations ranging from energy efficiency, packaging, weight and recycling; 51% of its revenue was attributed to these combined sustainability innovations (Clark et al. 2015). Another example is from LanzaTech, which created a microbe that can serve as a natural biocatalyst that captures CO₂ and turns it into ethanol for fuel (Clark et al. 2015). Virgin Atlantic believes it can use these microbes to meet its carbon reduction goals.

Companies can use their capital to invest in environmental research, stewardship, and renewable energy. Since TBL companies aim for longevity, these donations will continue to be around for the long-term. Additionally, partnerships with nongovernmental organizations is amongst the most valuable assets in terms of environmental stewardship. Through these partnerships both entities provide what they would otherwise lack on their own. Companies have the necessary resources and capital for environmental or ecological restoration and NGOs bring the knowledge and expertise to the table (Honeyman 2014). This creates a symbiotic relationship resulting in a higher impact given that NGOs mostly rely on donations, and companies may lack the knowledge to solve a specific environmental problem.

4.3 Social Value

Triple Bottom Line businesses have the potential to improve the livelihood of their employees as well as the society within the communities they operate. Some TBL companies implement paid volunteer programs. These programs act as an incentive for employees to take the day off and volunteer. Typically, the company awards paid time off (PTO) for volunteering or increases the PTO by 1.5 hours per hour volunteered. By doing this, employees can take time off without

compromising their paycheck or vacation time. These programs have been shown to increase employee engagement and attract quality employees as it can align with their sense of purpose (Honeyman 2014). Additionally, volunteering can also help employees gain experience outside their immediate field.

Safe and fair working conditions are promoted by TBL companies, not only within internal operations but also throughout the supply chain. Traditional companies do not always ensure their supply chain is free of controversial working conditions. As mentioned earlier, Nike suffered dearly due to sweatshop controversies overseas at the turn of the century. By ensuring the supply chain and internal operations are fair to workers, employees will be better off, as will the company.

Instead of paying minimum wage, some TBL businesses pay the living wage (Honeyman 2014). The living wage is based on market rates as opposed to minimum wage which is set by the government. The minimum wage in some cases can be below the poverty line. Therefore, paying all employees at least the living wage is best because it helps employees get out of cyclical poverty. Some TBL businesses go a step further and look into the ratio between the highest and lowest paid employees. In 2012, Fortune 50 CEOs were paid 379 times more than Fortune 50 employees, on average (Honeyman 2014). This creates a disconnect within the company between employees and CEOs. Some TBL companies look into leveling out the ratio to be between 5:1 and 10:1, highest to lowest paid employees.

Socially responsible investment (SRI) is offered at many TBL companies as part of their 401k plan. Socially responsible investment is an investment strategy where financial return comes from investing in socially, ethically, and sustainable sources (López-Arceiz et al. 2018). Usually, 401k options do not consider the causes they may fund and its impact on society or the environment. By offering SRI 401k plans, employees are guaranteed their money will be funding good causes that will benefit society and the environment.

Nongovernmental organization (NGO) and business partnerships are not only of environmental value, but can also be socially valuable. Certain NGOs focus on social problems such as the homeless, black empowerment, LGBTQ, etc. Partnering with these NGOs can create longevity for the cause due to their symbiotic relationship. Additionally, funds donated to local charities and organizations further fuel the stability of these organizations that offer relief to those in need.

4.4 Challenges

While the TBL model has extensive advantages, it also has its challenges. One challenge is that the TBL company may potentially cause a dilemma during investment. Traditional and common business practices include investing capital into an area that will yield a direct profit (i.e. short-term vision). However, there are times, especially when starting up, that a TBL company may find it difficult to decide where to invest its money. Investing in the wrong pillar at the wrong time could potentially cause a company to go under.

This brings up the issue of balancing the focus of the three pillars. Having one bottom line is straightforward as there is only one sector to focus on. But, when there are three sectors at play, the problem becomes that they essentially may begin competing with each other. For example, a TBL clothing company may decide to switch to more expensive organic cotton instead of cheaper cotton. This switch would add to the environmental bottom line but may result in a short-term decline in profits.

There are many established ways to calculate profits, however, calculating environmental and social value is more complex. There is not one universal way to calculate benefit of these sectors, which can be a disadvantage. Not being able to quantify the intangible impacts of all three sectors makes it difficult to gauge which sector needs improvement. Additionally, given that methods of calculation are not universal, it is difficult to compare one company against another.

Finally, companies who implement the TBL model as a method to increase business value may run into the issue of greenwashing. If the company overly markets itself as a green company and does not follow through with all aspects of sustainability, within internal operations and its supply chain, it can be accused of greenwashing (Etsy and Simmons 2011). Furthermore, companies who are not TBL companies but use the TBL as an afterthought may only comply with basic corporate social responsibility aspects. This turns the TBL into a method of meeting compliance and avoiding risk rather than using the TBL as a business model and tool to transform the company into a sustainable business.

5. Case Studies

5.1 Seventh Generation

4.1.1 Overview

Seventh Generation was founded in 1988 with the mission to “inspire a consumer revolution that nurtures the next seven generations” (Seventh Generation 2017). Since its establishment, the company has become a leader in the homecare industry and has set industry standards along the way. The company’s production of sustainable products and advocacy to eliminate harmful chemicals from its products has made its brand stand out against competitors. Focusing on four pillars, the company aims to “nurture nature, enhance health, transform commerce, and build communities” while tracking and sharing its progress along the way (Seventh Generation 2017).

4.1.2 Environmental Concerns and Benefits

Seventh Generation has set their environmental goals until year 2020. Goals beyond 2020 have not yet been disclosed (Seventh Generation 2017). In the 2017 Corporate Consciousness report, Seventh Generation outlines their environmental goals (table 1). The company benchmarked their absolute emissions (cradle to grave), waste, percent of bio-based chemicals in products, and sustainability efforts in 2012. In 2017 alone, the company saved 331,000 trees, the equivalent of 2,800 cars off the road for a year, 178 million gallons of water, 36,000 barrels of petroleum, and avoided 889,000 pounds of volatile organic compounds (VOCs) (Seventh Generation).

Since 2012, Seventh Generation has experienced an increase in GHG emissions by 26% in 2017 including carbon offsets (figure 4) (Seventh Generation 2017). The increase is mostly due to an increase in product sales, which lead to an increase in product transportation and packaging. However, its packaging related emissions have been reduced by 32%. The company purchased renewable energy credits and verified carbon offsets to make up for the amount of emissions it increased, however, it is not enough to cover all emissions. In order to reduce its emissions, Seventh Generation increased its internal carbon tax from \$6 to \$12 per ton of product produced in 2017 (Seventh Generation 2017). All money generated from this carbon tax is invested in agroforestry as a means to offset emissions produced.

Seventh Generation is concerned with the waste created from its products. Plastic is of rising concern as projections currently find that plastics in the ocean is set to double from 8 million metric tons in 2010 to 16 million metric tons in 2025 (Dauvergne 2018). As most of plastic waste ends up in the ocean, Seventh Generation has made strides to improve its packaging in order to avoid being a part of the problem. The company has a set goal to produce zero waste packaging by 2020. Additionally, Seventh Generation created the first 100% post-consumer recycled plastic (PCR) dish soap closures on the market (Seventh Generation 2017). Spouts for detergent and auto dish gel caps are both made from 100% post-consumer recycled polypropylene. Packaging for its products mostly consist of bottles, thus Seventh Generation has been steadily increasing the bio-based or post-consumer recycled content of its packaging (Seventh Generation 2017). The company currently has both products and packaging made from 84% bio-based or post-consumer recycled content and the packaging itself is now also 76% biodegradable or recyclable. Additionally, all bottles are now labeled with How to Recycle labels, which tell the consumer how to properly recycle the product.

For its paper-based products like diapers and toilet paper, Seventh Generation has sourced sustainable virgin wood pulp certified by the Forest Stewardship Council (FSC) (Seventh Generation 2017). Currently, 69% of its sourced wood pulp is certified however the number has been decreasing over the years which the company attributes to a spike in baby wipe purchases which does not contain certified wood pulp (Seventh Generation 2017).

4.1.3 Social Concerns and Benefits

Since Seventh Generation creates homecare products that its customers will be in constant contact with, the company aims to create products that are safe for them and free of harmful chemicals. One of the ingredients commonly found in detergent and soap products is boric acid. Due to concerns of chronic toxicity, boric acid was entirely eliminated from all products in Seventh Generation's line in 2017, three years ahead of schedule (Seventh Generation 2017). Additionally, Seventh Generation is researching plant-based alternatives for two types of synthetic preservatives that have skin sensitizing effects. To monitor its progress, stay knowledgeable about chemicals they use, and see where it stands against competitors, Seventh Generation completes the Chemical Footprint Project (CFP) report each year (Seventh Generation 2017). The CFP is an organization that created a benchmarking analysis for companies to use to reduce toxic and harmful chemicals

from their products (CFP 2018a). In 2017, Seventh Generation had the second highest score for eliminating chemicals of high concern, outcompeting other responders like Levi Strauss & Company and Seagate Technology (CFP 2018b).

Aside from its product line, Seventh Generation has made many efforts to create an equitable work environment. Seventh Generation has won #3 Best Places to Work in Vermont in 2013 and was #12 in 2017 (Seventh Generation 2017). Over those four years the company has managed to close the gender pay gap and balance gender ratio in management and executive teams (figure 5 and 6). Seventh Generation aims to increase gender as well as racial inclusivity within its company which is reflective of the country in which it operates. All employees are given bonuses and the opportunity to become a shareholder of the company (Seventh Generation 2015). The company also offers SRI options for its 401k plan, pays all workers a livable wage, and grants bonuses to both full-time and part-time employees. Additionally, employees are offered 16 hours of paid time, annually, to volunteer (Seventh Generation 2018). By 2020, the company would like to create the Best Place to Work in America. Outside of their employees, Seventh Generation has a code of conduct to which its suppliers are held. The company only does business with suppliers who meet requirements that range from providing an ethical work environment, environmental responsibility, and carrying out business with overall integrity (Seventh Generation 2016a).

4.1.4 Business Outcome

Because of the generous benefits Seventh Generation offers its employees, the company has been able to retain employees for an average length between 3 to 5 years (Seventh Generation 2016b). Additionally, due to its mission to make household products without the harmful chemicals other brands use, Seventh Generation has realized market differentiation. By branding itself as a greener alternative and actually delivering on that statement the company has surpassed the household product industry on the green front. The company has set industry standards by eliminating boric acid, by creating the world's first plastic product bottle that is made from an impressive 96% post-consumer waste, and also by creating a compostable laundry bottle that uses 66% less than other brands (Seventh Generation 2018). Seventh Generation also played a leading role in the development and passing of the California Cleaning Product Right to Know Act which requires manufacturers to disclose all ingredients used in creating their product (Bergstein 2018).

5.2 New Belgium Brewing

4.2.1 Overview

Established commercially in 1991 with a purpose statement “to manifest our love and talent by crafting our customers' favorite brands and proving business can be a force for good” (New Belgium 2018a), New Belgium has done just that. The company of 703 employees is 100% employee-owned, has co-founded the Glass Recycling Coalition, founded the Brewers Association Sustainability Subcommittee, and has donated over \$16 million to nonprofits. New Belgium is the fourth largest craft brewery in America, making its initiatives highly influential to customers and competitors alike (Brewers Association 2018). Its involvement in the community and sustainability efforts has helped New Belgium become one of the most recognized and environmentally conscious breweries of its kind. Since its opening in Colorado, New Belgium has expanded the company 40% by opening another location in North Carolina in order to meet production demands of the east coast.

4.2.2 Environmental Concerns and Benefits

New Belgium conducted the first carbon footprint study for beer, which offered insight for the industry as a whole (New Belgium 2018a). New Belgium has outlined its goals in reducing its carbon footprint and tracks its energy usage, GHG emissions, waste production, and water consumption. All company targets are to be met by 2020 and reductions are based off their 2014 baseline (New Belgium 2018a). Goals beyond 2020 have not yet been disclosed, if they have been developed. The company aims to reduce its energy usage by 4%, GHG emissions by 12%, landfill waste production by 31%, and water consumption by 12% by 2020. By 2050, New Belgium aims to reduce their GHG emissions by 50% below 2014 levels (figure 7).

Water is the main ingredient that goes into producing craft beer, not only at the brewery level but also while growing hops and barley. Since around 70% of all water consumption from lakes and rivers is used for irrigation (United Nations 2018a), ensuring the farms that supply to New Belgium are running sustainably is essential to reducing its ecological footprint. Additionally, reducing water consumption in the brewing process itself, is also key. Currently, New Belgium aims to reduce its water intensity to 3.5:1 water (hectoliters) to beer (hectoliters) ratio (New Belgium 2018a). However, after the opening of its new location in Asheville, North Carolina, water intensity has shown a steady increase since 2014 by 15% as of 2017 (New Belgium 2018a).

New Belgium recognizes this sector needs work and in efforts to reduce intensity it has created an initiative is to use rainwater as irrigation at its Asheville location. The company is currently testing the reuse of treated process water which could reduce water consumption throughout operations. Furthermore, New Belgium offers grants for projects that focus on water conservation and restoration (figure 8). In 2017, New Belgium donated almost \$200k to this effort alone. Additionally, the company donated to smart growth & climate efforts as well as bicycle advocacy (New Belgium 2018b). Beyond grants and internal initiatives, the company's Director of Sustainability inspired the Natural Resource Defense Council to create the Brewers for Clean Water campaign which advocates for clean waterways (New Belgium 2018c). Additionally, the company is a member of BIER, the Beverage Industry Environmental Roundtable, which brings brewing companies around the world to have a discussion and develop common frameworks for stewardship.

In terms of energy and GHG emissions, New Belgium is on track to meet their 2020 goals. In 1999, New Belgium became the first brewery in the country to purchase 100% of its electricity from wind power (New Belgium 2018d). Since then, New Belgium has created an intricate outline to identify energy strategies (figure 9). Starting with energy conservation as the base, the company aims to reduce its consumption by designing internal operations with conservation in mind. The company runs off of energy efficient equipment and converts waste energy back into usable energy with heat exchangers and energy storage tanks. The Colorado location uses Smart Grid technology which informs the site when electricity usage is at peak demand. This helps relieve stress on the grid as they can shut off certain power loads in order to decrease usage during that time and also saves on costs as electricity rates spike during peak demand hours. Additionally, New Belgium produces energy on-site with a mixture of solar thermal, biogas, and solar photovoltaics. Finally, New Belgium created an internal energy tax on all purchased electricity. This tax helps fund their energy projects including the much-needed energy efficient equipment upgrades at the Colorado site.

4.2.3 Social Concerns and Benefits

The co-founder and CEO of New Belgium, Kim Jordan, is a former social worker who envisioned the company as one that gives back to the community. As a result, New Belgium's mission includes reducing wealth inequality and increasing equity throughout the community

(New Belgium 2018a). Since 1991, the company has donated over \$16 million to nonprofit organizations. In addition to the environmental causes that it funds, New Belgium's philanthropic donations also support social causes such as community goodwill, sustainable agriculture, youth environmental education, and bicycle advocacy (figure 8). Some of these causes have a dual impact in that they not only support environmental stewardship but also social equity. For example, part of New Belgium's sustainable agriculture donation was made to the National Sustainable Agriculture Coalition (NASC) (New Belgium 2018b). The NASC supports grassroots sustainable agriculture while also protecting the communities in which they are involved (NASC 2018). Additionally, the NASC advocates for an affordable and stable food supply that is equitable for all. With both its internal sustainable initiatives and its donations to socioenvironmental organizations, New Belgium is able to amplify their social benefits and extend their reach outside of their community.

As one of the few 100% employee-owned breweries in America, New Belgium's main social focus begins with its employees (New Belgium 2018a). The company offers and encourages employees to take volunteer vacations of their choosing and are reimbursed up to \$500 per trip. Additionally, employees are granted an hour of PTO for every two hours volunteered. The company also has two onsite fitness areas, an onsite medical clinic, weight loss challenges, offers 32 different wellness programs, and reimburses employees for gym memberships or recreational league sports. In terms of its supply chain, New Belgium only does business with suppliers who are committed to reducing their carbon footprint and offer equitable work environments and benefits to their employees (New Belgium 2018f).

4.2.4 Business Outcome

Offering such expansive benefits with the addition of employees having stock in the business has led to a high 93% employee retention rate compared to the micro brewing industry's 87% average (New Belgium 2018e; Petroni 2018). The employee stock ownership plan (ESOP) was also highly effective in inspiring employee engagement as demonstrated by a 20% increase in sales just one year after the company went 100% employee-owned (Sorvino 2016). Even before New Belgium was employee-owned, the company implemented an open-book management program. Open-book management programs encourage communication, employee satisfaction, motivation, and retention which could have also impacted the high employee engagement and retention

(Broughton and Thomas 2012; Honeyman 2014). Yet, the company attributed the high employee engagement to its implementation of sustainability in its core business strategy back in 2007 (Etsy and Simmons 2011). The company saw an increase in growth rate of 13.4% which is larger than the average 8.1% of the industry. Furthermore, the company's employee retention was 95% after implementation and the company moved up thirteen spots up making it the eighth largest brewery, sales wise, in the nation in just five years. Lastly, New Belgium has managed to cut down costs, carbon emissions, and time by eliminating cardboard dividers in their 12-pack beers. This act alone saves the company roughly one million dollars a year (see Appendix A).

5.3 Patagonia

4.3.1 Overview

Patagonia is founded based on its commitment to the environment. As an outdoor apparel company, Patagonia keeps its product as sustainable and ethical as it can throughout its supply stream. The company not only sells sustainable products but also acts as an activist company which is a clear and defined goal based off of its purpose statement: "Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis" (Patagonia 2018a). These core values and how closely Patagonia sticks to them are the reasons why the company has won countless sustainability awards. Lastly, the company has stayed fairly small in comparison to its large customer base with only 1,000 employees.

4.3.2 Environmental Concerns and Benefits

Patagonia calls itself an activist company but has definitely earned the name. One percent of Patagonia sales fund environmental campaigns. Patagonia supports thousands of grassroots environmental organizations and has given them over \$90 million since the establishment of the company in 1983. Additionally, the company personally trains these activists so they can be more effective. Although Patagonia has done so much with activists throughout its history, it decided it can do more by connecting its customers to campaigns in their community. Therefore, the company launched Patagonia Action Works earlier this year. Patagonia Action Works is a link on their website that allows customers to find out what is going on within their community and volunteer to help organizations the company supports. This also allows organizations to amplify their voice and increase the opportunity of success of their campaign.

In addition to Patagonia Action Works, the company uses organic cotton and has created clothing with recycled fabrics (Patagonia 2018b). In fact, the company had major breakthrough in 1993 when it sold its first recycled polyester garment created from recycled plastic bottles. Since then, Patagonia has continued to work on recycled garments and has created Nano Puff, a product line made from 85% recycled polyester. Furthermore, the company is so set on reducing its environmental impact that it encourages its customers to do the same by buying less. Customers are encouraged to send back their Patagonia apparel that has reached the end of its life cycle so that the company can recycle or repurpose it (Patagonia 2018c). The company introduced WornWear which is a product line where customers can shop previously worn Patagonia apparel at a lower price. Additionally, Patagonia aims to use raw materials that are recycled where possible including nylon, polyester, cotton, wool, and down (Patagonia 2018e). All down materials are 100% non-live-plucked and made Patagonia one of the first in the industry to make this change (Haid 2014).

Internally, Patagonia has made their buildings energy efficient. In the construction of the Ventura offices, which required knocking down existing buildings, all building materials were recycled (Patagonia 2018d). Usually, building materials go to landfill but Patagonia made sure to bring all materials to corresponding recycling facilities. The Ventura offices are equipped with solar panels that reduce about 14% of demand from the grid, LED lights that reduce 38% of energy from previous years, and SMARTGRID technology to ensure the HVAC system is operating efficiently (Patagonia 2018e). Water consumption at Ventura offices are very low as well; all urinals are waterless, toilets are dual flush, faucets have motion sensors, and turf on the campus are watered with drip, pop up sprinklers, or not at all. Furthermore, portions of the parking lots in Ventura and Reno are not asphalt, they are made of permeable cement. This cement gives storm water time to drain through it, which filters pollutants and stops them from making their way into rivers and oceans. Finally, the company's Reno service center is gold level LEED certified. The Reno location does not use air conditioning, instead it uses a night time flush system that circulates the cold night air during the day. Additionally, the Reno location uses skylight which track the sun and reflect it into the warehouse, further reducing their electricity use.

To reduce environmental impact from employee transportation, Patagonia created a program called Drive-less in its North American locations (Patagonia 2018e). Drive-less motivates employees to car-pool or use active or public transportation by offering a monetary incentive. All

participating employees are paid \$2 per trip, up to two trips per day, and up to \$500 a year. Driveless saved the company 500,000 pounds of CO₂ in the first year of implementation.

Paper used at Patagonia is 100% recycled, and in times when they are not able to attain it they opt for virgin fiber sourced paper from companies that are FSC certified (Patagonia 2018f). Patagonia also created a program to ensure their supply chain follows the same morals the company does. The Chemical and Environmental Impacts Program was developed to implement the best management practices in their supply chain and their suppliers must adhere to these standards. Patagonia was also the first brand to join bluesign© system, which is a company that assists Patagonia with reducing resource consumption within its supply chain and manages the chemicals used in Patagonia products.

Lastly, Patagonia started a food company called Patagonia Provisions (Patagonia 2017). The reason the company expanded was because it wanted to start a revolution of cleanly sourced and environmentally friendly food. Through Patagonia Provisions the company created the Regenerative Organic Certification which certifies food products that are made through regenerative agriculture techniques. Agriculture emits more GHG emissions than transportation related emissions in the world. Through regenerative agriculture, farmers are able to increase crop yield while decreasing carbon emissions. Patagonia hopes this initiative will spread awareness and encourage farmers to implement more sustainable agricultural practices that are available.

4.3.3 Social Concerns and Benefits

Patagonia employees enjoy a plethora of benefits (Patagonia 2017). The company has an environmental internship program where employees can intern for up to two months at an environmental NGO of their choosing and still receive full pay and benefits. Retail employees also have a retail activism program opportunity which allows them to volunteer for campaigns all while receiving compensation for their time. Patagonia also offers 16 weeks of paid maternity leave and up to 12 weeks of paid paternity leave and has on-site child care (Honeyman 2014). The Driveless program is one that not only encourages employees to minimize their carbon footprint but also save employees money on travel expenses.

With its supply chain, Patagonia ensures fair working conditions are present in all of their supplier's factories and is accredited by the Fair Labor Association (Patagonia 2018g). The company has created a code of conduct for its suppliers which all must abide in order to continue

to doing business with the company. Suppliers are visited regularly and audited to ensure code of conduct is being followed.

The activist aspect of Patagonia not only supports environmental initiatives, but also societal initiatives as well. Patagonia was represented in the Women's March of 2017 through employees who went and supported the cause (Patagonia 2017). Additionally, Patagonia donates to the environmental organizations they support. The company also provides clothing for disaster relief. Clothing given to organizations and disaster relief programs totaled \$121,000 worth in 2017. Organizations supported by Patagonia for boosting welfare include Seeds, an organization fighting for indigenous communities in Australia and the threat of climate change.

4.3.4 Business Outcome

Patagonia has put a lot of upfront capital into its energy efficient buildings. However, the company has been able to reduce energy use by 30-35%; these savings ultimately paid for the upfront costs in just three to eight years (Patagonia 2018e). The strong environmental values and mission Patagonia has, has set them apart from its competition. The company which once almost went under in the early 1990s, succeeded in the industry because of its commitment to the environment. Yvon Chouinard, the founder of Patagonia, almost sold the company after having to lay off a fifth of its workforce. But instead of quitting, Chouinard decided to stay in the business and most importantly, he decided to stay true to his environmental mission. Patagonia made several strides that are counter intuitive to traditional business methods. By sharing research and development information with its competitors, Patagonia was able to become profitable again. The company helped Walmart reduce packaging and water use in its supply chains and even shared its organic cotton farming techniques with others. One of the strides being the WornWear campaign which, as mentioned above, encourages customers to buy used products instead of new products. The actions the company took during a time when it almost went under is representative how strongly it sticks to its triple bottom line and how beneficial a triple bottom line can be for corporations.

5.4 Ben & Jerry's

4.4.1 Overview

Based in Vermont, Ben & Jerry's mission is to create delectable ice-cream and empower society in an economically sustainable fashion (Ben & Jerry's 2018). Ben & Jerry's differs than

the previous outlined companies in that it has a three-part mission: product, economic, social. Ben & Jerry's product mission is to make delectable ice cream, the economic mission is to manage their company "for sustainable financial growth", and the social mission is simply to use the company "in innovative ways to make the world a better place" (Ben & Jerry's 2018b). The main social issues the company focuses on includes racial justice, refugees, and LGBT inclusivity. Nonetheless, Ben & Jerry's remains focused on all three pillars of the TBL and clearly emphasizes climate change as part of its mission.

4.3.2 Environmental Concerns and Benefits

Since ice-cream's main ingredient is dairy, reducing methane related emissions, which accounted for 42% of the company's emissions in 2015, proves quite difficult (Ben & Jerry's 2015). However, Ben & Jerry's has not shied away from reducing their carbon footprint. Since 1989, the company has produced annual social and environmental assessment (SEAR) reports which are always made available to the public (Ben & Jerry's 2018a). The annual SEAR reports detail the progress and achievements the company made that calendar year in regards to its social and environmental initiatives. Though Ben & Jerry's started these reports back in 1989, the company did not start measuring their carbon footprint until the early 2000's and data prior to 2006 is not currently available on their website.

Currently, Ben & Jerry's has ambitious short-term GHG emission reduction goals including becoming 100% renewable and reducing their GHG intensity by 40% by 2025 (see figure 10 for emissions by sector). By 2050, the company plans to have reduced its GHG intensity by 80% (Ben & Jerry's 2018c). The company realizes its emission reduction goals are quite ambitious. For this reason, Ben & Jerry's has planned a 4% reduction in emissions each year until 2025 (Ben & Jerry's 2018c). With thousands of existing emission reduction projects currently in place, the company plans to implement thousands more. Ben & Jerry's is aggressively targeting its on-farm pipeline and nitrogen related emissions to meet the 40% reduction target (figure 11). In 2015, the company created an internal carbon tax and uses these funds to invest back in sustainability, specifically investing in creating cleaner and greener technology to combat its farm emissions (Ben & Jerry's 2015). The existing projects focus on methane emissions, including a methane separator which reduces emissions from manure by separating solids from the liquids. Methane is released from manure during an anaerobic decomposition process. This process cannot occur when oxygen is present as the methane forming bacteria cannot tolerate these conditions.

Therefore, separating the liquids and letting the solid part dry out greatly reduces decomposition and thus the amount of methane released. The liquid manure is then used as a fertilizer on fields and the solid matter is composted and transformed into a clean bedding material for the livestock (Ben & Jerry's 2014). In just one year and on one farm alone, the methane separator was able to prevent 13,000 mtCO₂e from being emitted (Ben & Jerry's 2018c).

In addition to the methane separator, Ben & Jerry's implemented its first small-scale digester on one of its contracted farms in 2017 (Ben & Jerry's 2018c). The small-scale digester is equipped with a biogas reactor that is able to sequester biogas by fermenting manure (Spuhler 2018). The biogas produced from manure is a mixture of methane and carbon dioxide and can either be stored in a connected chamber or can be transported directly to where it will be used. The stored or transported biogas can later be converted into electricity. The remaining manure in the chamber can then be applied to the field as a fertilizer (figure 12). By the end of 2017, Ben & Jerry's approximated total emissions prevented due to the small-scale digester was around 10,000 mtCO₂e (Ben & Jerry's 2018c). In addition to these incredible technologies, Ben & Jerry's has over fifty emission reducing technologies that it is currently testing on its farms. These technologies may have the potential to further reduce the environmental impact of its dairy farms and assist Ben & Jerry's in getting closer to completing their 40% reduction goal.

The company has performed life cycle analyses (LCA) of their product evaluating emissions produced from the farm to the customer, with the most recent report completed in 2014 (figure 13) (Ben & Jerry's 2018a). The 2014 LCA determined that every pint of ice-cream Ben & Jerry's creates releases 2 pounds of CO₂ emissions. In 2016, the company's strategic consulting firm, Pure Strategies, performed an updated review of the LCA with more accurate data and determined the emissions created per pint is closer to 3.08 pounds (Ben & Jerry's 2016).

In 2003, Ben & Jerry's launched its Caring Dairy program (Ben & Jerry's 2006). The purpose of the Caring Dairy program was to work directly with the company's dairy farmers and evaluate their environmental, social, and economic performances. Through this program, Ben & Jerry's was able to develop guidelines for farmers to run their dairy farms sustainably. The guideline was initially dedicated to the company's dairy suppliers. Yet in 2008, Ben & Jerry's released the guidelines to the public as a means to educate more farmers on sustainable practices. The program holds workshops where farmers are advised on areas in which they can improve and grants cash incentives to the farmers with the best management practices. In 2016, Ben & Jerry's

updated its evaluation process making it stronger and more intensive (Ben & Jerry's 2016). After farmers are educated on the areas they need to improve, the farmers must create plans to strengthen these areas and later implement them. The results of this program on participating farms are impressive. In just one year, participating farmers increased their cover crop use in 2016 which resulted in a 68% increase of cover cropped land as compared to the year prior. Between 2015 to 2016, the participating farmers also expanded their no-till to minimum tilled land from 18% to 35%. Lastly, these farmers were able to reduce the amount of fertilizer used on their farms by 28%.

4.3.3 Social Concerns and Benefits

BJ is highly active in society. The company has outlined five social missions: economic justice, fairness & inclusion, community capital, civic engagement, and social pluralism (Ben & Jerry's 2018c). Figure 14 outlines the framework Ben & Jerry's created for their 2017 calendar year. The company aims to use its influence on its customers, suppliers, and other stakeholders as a means to increase awareness and encourage the adoption of practices that help solve these social equity issues.

Ben & Jerry's strive for economic justice starts with their employees. The company pays their employees a livable wage and recalculates the wages every year to ensure it is keeping up with the cost of living (Honeyman 2014). Employees are paid for volunteer work. Additionally, the company purchases many of its ingredients from fair-trade certified agricultural producers and paid an additional \$3.4 million dollars on top the fair price they pay the farmers in 2017 (Ben & Jerry's 2018e). As far as donations, Ben & Jerry's created the Ben & Jerry's Foundation back in 1985 which commits 7.5% of the company's pre-taxed profit to charity (Ben & Jerry's 2018c). With money from this foundation, Ben & Jerry's created a United Kingdom (UK) Fund to disperse their impact overseas. The UK fund specifically supports organizations that provide asylum for refugees and other migrant groups.

In 2017, Ben & Jerry's worked with the Poor People's Campaign which is an organization led to restore and protect voter rights especially in marginalized communities (Ben & Jerry's 2018). Second Chances, in Florida, was another campaign Ben & Jerry's supported to restore the right to vote to 1.6 million people with a felony record. In addition to the UK Fund, Ben & Jerry's has created social mission teams in each of the five European countries in which it operates. The social mission teams targeted wind energy, democratic engagement, and marriage equality in 2017. Additionally, Ben & Jerry's has joined the Together with Refugees campaign and saw progress

when the EU union took a progressive vote forward with regards to resettlement policies. Ben & Jerry's plans on continuing this campaign throughout 2018.

4.3.4 Business Outcome

Ben & Jerry's has been around since 1978 which is a long time considering the enlightened values the business holds. The success Ben & Jerry's has seen is in part due to its progressive environmental mission. Ben & Jerry's has gained market differentiation by reducing the large impact ice cream normally has on the environment. Indeed, dairy has a large carbon footprint but Ben & Jerry's is able to bring to the market a product that strives to reduce that footprint. Through its relentless testing of carbon reducing technology in dairy farms, Ben & Jerry's has surpassed its competitors and has lowered ice cream's impact on the environment. Additionally, by sharing best management practices of dairy farm with other farmers, the environmental benefit the company has created far exceeds what it could do internally. Its goal to increase inclusivity within the community allows customers to relate with the company and feel good about purchasing their product. The benefits employees receive motivate them to strive for excellence with every day they spend with the company.

5. Summary and Recommendations

5.1 Summary

As a result, the case study analysis and outcome-based scoring matrix has shown that the triple bottom line has guided these businesses to produce environmental and social benefits while increasing their business value (figure 15). Contrary to traditional beliefs, these four companies have managed to profit from sustainability and build their brand, simultaneously. Each of the four companies have succeeded in reducing risk and liability and have thus increased investors' attraction to the company. Risk reduction has been accomplished by running the company in an environmentally responsible manner and also ensuring supply chains follow a strict code of conduct. Codes of conduct studied in this analysis varies by company but each include regulations against child labor, forced labor, and discrimination, while also incorporating the need for them to follow environmental laws and regulations. Having a set of regulations that supply chain manufacturers must abide by lowers the risk of the company potentially being involved in malpractice.

Due to their supply chain regulations and internal environmental missions, all four companies were able to create sustainable products. All companies sourced most of their product ingredients from fair-trade and sustainable sources. Furthermore, three of the four companies were able to upgrade their buildings and manufacturing plants to be more energy efficient. Seventh Generation is the only company that has not disclosed any energy efficiency initiatives but the company has stated it is searching for routes to become more energy efficient in the years to come (Seventh Generation 2017). Even without energy efficiency initiatives, Seventh Generation has still been able to create a sustainable product through its packaging and ingredient sourcing. The company has significantly increased post-consumer plastic in their bottles and source most of their ingredients from fair-trade and sustainable sources where it is able to. Patagonia is by far the leader in energy efficient buildings as the company is the only one with a LEED certified building. However, New Belgium and Ben & Jerry's have also made headway to energy efficiency in their operations. New Belgium runs off of energy efficient equipment, converts waste energy back into usable energy, and reuses rinse water (saving them one million gallons of water a year). Ben & Jerry's is able to cut down on farm related methane emissions by using small scale digesters that separate methane from manure and store the gas to later be used for electricity.

All companies have developed clear and defined environmental missions that are paving the way for the creation and sharing of sustainable solutions in their industry and communities. Seventh Generation's mission is to create environmentally friendly household products and transform commerce to follow suit. Because of this, the company has been successful at leading the campaign for the passing of ingredient disclosure laws in California. New Belgium's mission is to produce world-class beers with sustainably sourced ingredients and foster a community that shares sustainable solutions. Through its community involvement, the company has helped create manuals for other brewers to use as a guide for sustainable and energy efficient brewing operations. Patagonia's mission is to encourage and implement environmental solutions through its business. With the wealth Patagonia has created, the company has been able to fund hundreds of environmental campaigns and organizations and even train the members to be more effective in their activism. Ben & Jerry's environmental mission is to promote business practices that are environmental responsible. The company created its Caring Dairy program which has decreased cow related emissions outside of its company by educating dairy farmers across the nation on sustainable farming methods.

Though all four companies have strong environmental missions, only New Belgium has been able to reduce its carbon emissions since its benchmark year. Both Seventh Generation and Ben & Jerry's have experienced an increase in their carbon emissions since their benchmark year. It is unclear whether Patagonia has calculated its total emissions as this information has not been publicly disclosed. With the exception of Patagonia, all other companies in this study have revealed their 2020 GHG emission reduction goals. However, New Belgium and Ben & Jerry's were the only companies in this analysis that went even further and established their 2050 GHG emission reduction goals.

New Belgium and Ben & Jerry's were the only ones to define specific social missions. New Belgium is focused on improving the lives of their employees and work culture, while Ben & Jerry's tackles social equity issues outside of their company. Patagonia and Seventh Generation do not have such defined social missions. Though Patagonia funds environmental organizations that may also have a societal benefit, it has not honed in on a specific social issue to address. Furthermore, while Seventh Generation aims to create greener and safer alternatives to household products on the market, the company has also failed to identify a clear social mission. Although, this has not stopped Patagonia and Seventh Generation from creating positive social change, the lack of a social mission might be an avenue of unexplored potential.

Employee volunteer programs have been implemented by all four companies analyzed in this case study. In each case, employees are compensated for their time volunteering. Additionally, all companies have an SRI 401k option. Although simple, offering an SRI 401k reinforces the company's missions and values and demonstrates to employees the degree to which the company abides by their missions. All companies also granted employees a stake in the company. After a certain period of time, depending on the company, employees could own a share of the company. This in turn motivates employees and increases retention rates. The more stake an employee has in a company, the more effort they put into it and the longer they stay due to the financial incentive. New Belgium was able to achieve a 93% employee retention rate which may be attributable to the company being 100% employee owned.

Through this case study analysis, it is evident that TBL companies have the potential to inspire change and spread knowledge with others in their industry. This concept is counterintuitive to traditional business methods as traditional businesses tend to keep their innovations to themselves as a means to stay competitive. But, sharing innovative solutions with other businesses

does not necessarily result in being less competitive, instead it results in changing industry standards while still achieving market differentiation. With set and distinct missions, these companies have created tangible results and have crafted innovative solutions that can help shape the future of business.

5.2 Recommendations

5.2.1 Case Study Recommendations

Seventh Generation

Seventh Generation must dissect their operations processes to find areas that are weakest in terms of energy efficiency and assess ways to improve them. Dedicating one day or week out the year for employees to brainstorm solutions to problems like these may result in finding the solution. The reason being is company has been unsuccessful in reducing GHG emissions since their benchmark year and has been relying on carbon offsets to minimize their impact. However, carbon offsets are a temporary solution and emissions should be addressed at the source. The company seems to be hiding behind the fact that the majority of their LCA emissions are produced by the customer and has neglected to implement energy efficiency initiatives. Since energy efficiency initiatives have not been publicly disclosed by the company, it is assumed these initiatives do not yet exist. Energy efficient buildings and operations is a missed opportunity that has the potential of saving Seventh Generation a lot of money.

Additional efforts should be made to source sustainable corn, soy, and coconut ingredients. As a certified B corporation, Seventh Generation has the ability to connect with like-minded businesses within their industry. By leveraging this network and working with these businesses, Seventh Generation can explore how other companies have been able to sustainably source these ingredients. Furthermore, I recommend Seventh Generation seek out a partnership with organizations like the Sustainable Food Trade Association or the Rainforest Alliance to find sustainable sources for these ingredients (see Appendix B for further information on these organizations).

While the gender pay gap has been closed, diversity for non-white employees is minimal with only 9 of the 137 employees being non-white (figure 6). This may be attributable to the location of their company and diversity within that area. Yet, Seventh Generation must still work towards attracting qualified individuals from under-represented groups and increasing workplace diversity.

The following are examples of routes the company should explore to connect with and attract qualified and racially diverse candidates: ask existing employees for referrals of potential candidates, speak with local organizations that have community connections like churches or colleges, emphasize the opportunity for advancement in the position.

Since Seventh Generation lost a point in the outcome-based matrix for not balancing their social bottom line, the company needs to hone in on a specific social mission. Due to their low workplace diversity, the company may benefit from creating a social mission that works towards fixing this issue. The act of defining this as something the company values and supports might attract diverse candidates by itself. But, continuously striving to increase diversity throughout the workplace and communicating this goal with employees will open up the conversation to solving this issue.

Lastly, Seventh Generation has yet to define a 2050 GHG emissions reduction goal. I recommend the company create a 2050 goal as soon as it can, even if it is more aspirational than it seems achievable. The reason being is that substantial results can still be realized by having an ambitious overarching goal. A mixture of long-term targets, short-term targets, and aspirational goals will create the most beneficial results in meeting these goals (Etsy and Simmons 2011). Striving in the direction of the long-term and seemingly aspiration targets will bring the company closer to achieving it than having no targets in place at all.

New Belgium Brewing

Since New Belgium received a perfect score on the outcome-based matrix, the only recommendations I have are to implement a public/active transportation rewards program for employees. Similar to the one Patagonia has created, the rewards program should offer a financial incentive for employees to use active or public transportation in their daily commute.

Patagonia

Patagonia has not disclosed its benchmark emissions, nor has it defined its 2020 or 2050 GHG emission reduction goals. For this reason, it is assumed that the company has not benchmarked its emissions, nor does it have 2020 or 2050 goals in place. I recommend Patagonia calculate its emissions and establish a benchmark to later use for comparative analysis and also perform an LCA of its highest selling product. A plethora of information can be gained by analyzing total annual emissions, and even more information could be gained by performing an LCA. Information

from these analyses can help shed light on areas that need improvement. Once Patagonia benchmarks their emissions, they should begin to develop strategic short-term goals (2020) and overarching long-term goals (2050) to work towards reducing their emissions.

While Patagonia's environmental efforts are seemingly unmatched, their social bottom line is unbalanced. The company has no clear social mission and although its environmental philanthropy may support environmental campaigns that indirectly create social benefits, the company can still profit from defining a separate social mission. Because of its love for the outdoors, the company should develop a social mission around improving access to nature for inner city kids. It is easy for inner city kids to be detached from nature due to their location and financial circumstances. By creating programs that bring these kids out of the city and into the outdoors Patagonia will help them develop a connection with the environment that they would not have otherwise.

Ben & Jerry's

Considering its results in the outcome-based scoring matrix, Ben & Jerry's only lost points because they have not reduced emissions since their benchmark year. In light of previous SEAR reports, it seems as though the company only compares its emissions of the current year against the previous year. In order to effectively evaluate where the company stands in terms of its carbon footprint, Ben & Jerry's should consistently compare its emissions against all previous years. In doing so, the company will be able to identify which initiatives were most successful and which were least successful, as the years go on.

5.2.2 Recommendations for Implementing the TBL

The first step for implementing the TBL at a company is to identify the environmental and social issues that the product or service may create (Etsy and Simmons 2011). Many industries rely on natural resources in order to do their business which may create pollution or lead to depletion. It is important to understand how this pollution/depletion can affect others. Companies should look at their internal impacts, impacts from their supply chain, and impacts from when the customer uses the product. This will give an overview of potential problems to focus on and later set goals for.

The second step is to benchmark current operations. Benchmarking sheds light on the areas the company is doing well and the areas that can be improved. Emissions are typically the most

commonly benchmarked aspect of the business. The difference lies with what you do with this information. Each year emissions should be reassessed and the highest emitting sectors should be identified. An LCA can provide a more in-depth analysis of which stage of the product is the highest emitting. The B Corp Assessment is one of the most extensive benchmarking reports available. This assessment looks into all aspects of the TBL including employee equity, SRI 401k options, community impacts, environmental impacts, and governance of the company itself (Honeyman 2014). Completing assessments like the B Corp can help identify sustainability opportunities that may have been overlooked before. Even if the company does not want to become B Corp certified, the B Corp Assessment raises issues that any company that wants to implement the TBL should look into. Furthermore, businesses that create household or hygienic products should consider participating in the CFP as a means to learn about safer alternatives to potentially harmful chemical ingredients used in the product.

In order to stay competitive, companies should research their competitors and learn how their company stands against them. Start by looking into the competition's timeline for completing their targets (Etsy and Simmons 2011). Align your targets with your competition's timeline in mind. Once this is done, prioritizing the easiest tasks first will help jump start TBL initiatives. For example, an easy task may be converting all lighting to LED lights. The money saved on electricity costs can be used as investment in other TBL initiatives. Completing small tasks first also creates momentum that may motivate employees to continue striving for completion of other initiatives.

Third step is being able to relay the company's vision to executives, employees, and to customers. This is a crucial step as the TBL is a marketable strategy that can motivate employees and customers alike. The development of a catchy mission statement can boost motivation even further. This can serve as an advantage to ensure the TBL is understood and thriving while initiatives continue to be carried out. Employees need to be clear on what the company's vision is, what the environmental and social initiatives are, and what is being asked of them. Develop short-term goals and long-term overarching goals. Even if the long-term goals seem overly ambitious and aspirational this will help keep employees working towards the target. Having a mixture long-term goals and many short-term goals will help keep everyone focused and provide a clear understanding of the tasks at hand (Etsy and Simmons 2011).

Lastly, one of the most important things for executive leaders to recognize about the TBL is that it is a journey and not a destination. The steps outlined above will need to be readdressed continuously throughout the life of the business in order to keep up with the evolving market and scientific advances. Technology developed in the coming years may shed light on environmental problems not recognized before. Public expectations change with time and thus companies should continue to adapt with them. Finally, cutting edge sustainability opportunities that are leading the way one year, may become requirements the next. Consistent revision of the steps will allow the company to continuously improve efficiently and effectively throughout its lifetime.

6. Literature Cited

- Ben & Jerry's. 2006. 2006 Social and Environmental Assessment Report. Ben & Jerry's. Accessed 30 November 2018. <https://www.benjerry.com/about-us/sear-reports/2006-sear-report>
- Ben & Jerry's. 2014. Waste Not, Want Not: Creating Usable Materials from Cow Manure while Reducing Methane. Ben & Jerry's. Accessed 21 October 2018. <https://www.benjerry.com/whats-new/2014/greenhouse-effect-manure>
- Ben & Jerry's. 2015. Internal Carbon Tax. Ben & Jerry's. Accessed 26 November 2018. <https://www.benjerry.com/values/issues-we-care-about/climate-justice/internal-carbon-tax>
- Ben & Jerry's. 2016. 2016. Social and Environmental Assessment Report. Ben & Jerry's. Accessed 30 November 2018. <https://www.benjerry.com/about-us/sear-reports/2016-sear-report>
- Ben & Jerry's. 2018a. A Life Cycle Analysis Study of Some of our Flavors. Ben & Jerry's. Accessed 21 October 2018. <https://www.benjerry.com/values/issues-we-care-about/climate-justice/life-cycle-analysis>
- Ben & Jerry's. 2018b. Our Values. Ben & Jerry's. Accessed 21 October 2018. <https://www.benjerry.com/values>
- Ben & Jerry's. 2018c. 2017 Social & Environmental Assessment Report. Ben & Jerry's. Accessed 26 November 2018. <https://www.benjerry.com/about-us/sear-reports/2017-sear-report>
- Ben & Jerry's. 2018d. Caring Dairy. Ben & Jerry's. Accessed 26 November 2018. <https://www.benjerry.com/caringdairy>
- Ben & Jerry's. 2018e. Fairtrade. Ben & Jerry's. Accessed 26 November 2018. <https://www.benjerry.com/values/issues-we-care-about/fairtrade#read-more>
- Bergstein, J. 2018. A Message from Our CEO. Seventh Generation. Accessed 4 December 2018. <https://www.seventhgeneration.com/blog/ceo-message>
- Brewers Association. 2018. Brewers Association releases 2017 top 50 brewing companies by sales volume. Accessed 25 October 2018. <https://www.brewersassociation.org/press-releases/brewers-association-releases-2017-top-50-brewing-companies-by-sales-volume/>
- Broughton, A. C., and J. Thomas. 2012. Embracing Open-Book Management to Fuel Employee Engagement and Corporate Sustainability. UNC Kenan-Flagler Business School. Accessed 19 October 2018. <https://www.kenan-flagler.unc.edu/executive->

development/custom-
programs/~media/C910D7FE40984DAF8DFD90A37335E452.ashx

- B Lab. 2018a. B Impact Report: Patagonia, Inc. B Lab.
<https://bcorporation.net/directory/patagonia-inc>. Accessed 30 September 2018.
- B Lab. 2018b. B Impact Report: New Belgium Brewery Co, Inc. B Lab.
<https://bcorporation.net/directory/new-belgium-brewing-co-inc>. Accessed 30 September 2018.
- B Lab. 2018c. B Impact Report: Seventh Generation. B Lab.
<https://bcorporation.net/directory/seventh-generation>. Accessed 30 September 2018.
- CFP. 2018a. Learn. Chemical Footprint Project. Accessed 11 November 2018.
<https://www.chemicalfootprint.org/learn>
- CFP. 2018b. Responders. Chemical Footprint Project. Accessed 11 November 2018.
<https://www.chemicalfootprint.org/results/companies>
- Clark, G.L., A. Feiner, and M. Veihs. 2015. From the Stockholder to the Stakeholder: How Sustainability Can Drive Outperformance. University of Oxford.
https://arabesque.com/research/From_the_stockholder_to_the_stakeholder_web.pdf
- Dauvergne, P. 2018. Why is the global governance of plastic failing the oceans? *Global Environmental Change* **51**:22-31.
- Dukecevic, D. 2001. Disaster of the Day: Nike. *The Guardian*.
<https://www.forbes.com/2001/02/22/0222disasternike.html#2e061e985ee9>. Accessed 30 September 2018.
- Etsy, D.C., and P. Simmons. 2011. The green to gold handbook business playbook: How to implement sustainability for bottom-line results in every business function. John Wiley & Sons, Inc. Hoboken, NJ.
- Etsy, D. C. 2017. Toward a sustainable global economy: An initiative for G20 leadership. *Journal of Self Governance and Management Economics* **5**:46-60.
- Glavas, A. and J. Mish. 2015. Resources and capabilities of triple bottom line firms: going over old or breaking new ground? *Journal of Business Ethics* **127**:623-642.
- Haid, P. 2014. How Patagonia Went from Turmoil to Wildly Successful by Making Counter-Intuitive Moves. *The Financial Post*. Accessed 27 October 2018.
<https://business.financialpost.com/entrepreneur/how-patagonia-went-from-turmoil-to-wildly-successful-by-making-counter-intuitive-moves>

- Hammer, J., and G. Pivo. 2017. The triple bottom line and sustainable economic development theory and practice. *Economic Development Quarterly* **31**:25-36.
- Heap, S. 2000. NGO-Business partnerships: Research-in-progress. *Public Management Review* **2**:555-563.
- Honeyman, R. 2014. *The B Corp Handbook: How to Use Business as a Force for Good*. Berrett-Koehler Publishers, Inc., Oakland, CA.
- Inman, P. 2018. Study: Big Corporations Dominate List of World's Top Economic Entities. *The Guardian*. <https://www.theguardian.com/business/2016/sep/12/global-justice-now-study-multinational-businesses-walmart-apple-shell>. Accessed 30 September 2018.
- Lee, Y., and X. Garza-Gomez. 2012. Market-based approximation of the cost of non-conformance associated with the 2010 Gulf of Mexico oil spill. *Total Quality Management & Business Excellence* **23**:221-236.
- López-Arceiz, F. J., A. J. Bellostas-Pérezgrueso, and J. M. Moneva. 2018. Evaluation of the Cultural Environment's Impact on the Performance of the Socially Responsible Investment Funds. *Journal of Business Ethics* **150**:259-278.
- Longoni, A., and R. Cagliano. 2018. Sustainable innovativeness and the triple bottom line: the role of organizational time perspective. *Journal of Business Ethics* **151**:1097-1120.
- Lozano, R. 2008. Envisioning sustainability three-dimensionally. *Journal of Cleaner Production* **16**:1838-1846.
- Luigi, D., S. Oana, T. Mihai, and V. Simona. 2013. Achieving employee satisfaction by pursuing sustainable practices. *Studies in Business & Economics* **8**:36-45.
- Maak, T., and N. M. Pless. 2009. Business leaders as citizens of the world: Advancing humanism on a global scale. *Journal of Business Ethics* **88**:537-550.
- National Sustainable Agriculture Coalition (NASAC). 2018. About Us. Accessed 26 October 2018. <http://sustainableagriculture.net/about-us/>
- New Belgium Brewing. 2018a. *Business as a Force for Good*. New Belgium Brewing. Accessed 17 October 2018. <https://www.newbelgium.com/globalassets/sustainability/force-for-good-digital-report.pdf>
- New Belgium Brewing. 2018b. *2017 New Belgium Philanthropy Fund*. New Belgium Brewing. Accessed 25 October 2018. <https://www.newbelgium.com/globalassets/grants/2018/2017-philanthropy-fund-report.pdf>

- New Belgium Brewing. 2018c. Policy + the craft beer industry. New Belgium Brewing. Accessed 25 October 2018. <https://www.newbelgium.com/sustainability/community/policyandindustry/>
- New Belgium Brewing. 2018d. Energy. New Belgium Brewing. Accessed 25 October 2018. <https://www.newbelgium.com/sustainability/environmental-metrics/energy/>
- New Belgium Brewing. 2018e. A snapshot of our B Corp score. New Belgium Brewing. Accessed 26 October 2018. <https://www.newbelgium.com/sustainability/community/bcorp/>
- New Belgium Brewing. 2018f. Sustainable Purchasing Guidelines. Accessed 4 December 2018. <https://www.newbelgium.com/sustainability/sourcing/sustainablepurchasing>
- Patagonia. 2017. Patagonia: Environmental and Social Initiatives. Accessed 3 December 2018. <https://issuu.com/thecleanestline/docs/patagonia-enviro-initiatives-2017>
- Patagonia. 2018a. Patagonia's Mission Statement. Patagonia. <https://www.patagonia.com/company-info.html>. Accessed 30 September 2018.
- Patagonia. 2018b. Impact and Adoption. Accessed 3 December 2018. <https://www.patagonia.com/impact-and-adoption.html>
- Patagonia. 2018c. How to Recycle Patagonia Garments. Accessed 3 December 2018. <https://www.patagonia.com/recycling.html>
- Patagonia. 2018d. The Firehouse. Accessed 3 December 2018. <https://www.patagonia.com/static/on/demandware.static/-/Library-Sites-PatagoniaShared/default/dw71bc81e5/PDF-US/firehouse.pdf>
- Patagonia. 2018e. Resource Use. Accessed 3 December 2018. <https://www.patagonia.com/resource-use.html>
- Patagonia. 2018f. Our Business and Climate Change. Accessed 3 December 2018. <https://www.patagonia.com/climate-change.html>
- Patagonia. 2018g. Working with Factories. Accessed 4 December 2018. <https://www.patagonia.com/working-with-factories.html>
- Petroni, P. 2018. See the Industries with the Highest Turnover (And Why It's So High). LinkedIn. Accessed 29 October 2018. <https://learning.linkedin.com/blog/engaging-your-workforce/see-the-industries-with-the-highest-turnover--and-why-it-s-so-hi>
- PwC. 2017. 17th Annual CEO Global Survey: Summary: Sustainability. PwC. Accessed 31 October 2018. <https://www.pwc.com/gx/en/sustainability/ceo-views/assets/pwc-ceo-summary-sustainability.pdf>

- Rainforest Alliance. (2018). Food & Farming: Feeding a Growing Population. Accessed 6 December 2018. <https://www.rainforest-alliance.org/issues/food>
- Rock, M. T. 2003. Public disclosure of the sweatshop practices of American multinational garment/shoe makers/retailers: Impacts on their stock prices. *Competition & Change* 7:23-28.
- Seventh Generation. 2015. 2015 Corporate Consciousness Report. Accessed 4 December 2018. https://www.seventhgeneration.com/sites/default/files/2018-07/2015_seventh_generation_corporate_responsibility_report.pdf
- Seventh Generation. 2016. Code of Conduct. Accessed 4 December 2018. https://www.seventhgeneration.com/sites/default/files/2018-06/seventhgeneration_code_of_conduct_04-2016.pdf
- Seventh Generation. 2016. Seventh Generation Assessment. B Corp. Accessed 26 November 2018. <https://s3.amazonaws.com/blab-impact-published-production/public/CLATTnpuZCWxWvKjABukoHJEOoArxWherY2FEzo>
- Seventh Generation. 2017. Corporate Consciousness Report 2017. Burlington, VT. Accessed 19 October 2018. https://www.seventhgeneration.com/sites/default/files/2018-07/SVG_CC-Report_LOWRES-PREVIEW.pdf
- Seventh Generation. 2018. Seventh Generation Missions and Values. Burlington, VT. Accessed 30 November 2018. https://www.seventhgeneration.com/sites/default/files/2018-07/SeventhGeneration_Mission-and-Values.pdf
- Sustainable Food Trade Association (SFTA). 2018. Home. Accessed 6 December 2018. <http://www.sustainablefoodtrade.org/>
- Sorvino, C. 2016. New Belgium's Kim Jordan Talks About What It Takes to Be America's Richest Female Brewer. *Forbes*. 16 July 2016. Accessed 26 October 2018. <https://www.forbes.com/sites/chloesorvino/2016/07/16/new-belgiums-kim-jordan-talks-what-it-takes-to-be-americas-richest-female-brewer/#162fbe12b6d3>
- Spuhler, D. 2018. Anaerobic Digestion (Small-Scale). Sustainable Sanitation And Water Management Toolbox. Accessed 26 November 2018. <https://sswm.info/arctic-wash/module-4-technology/further-reseources-wastewater-treatment/anaerobic-digestion-%28small-scale%29>
- Steinbuch, Y. 2017. Officers Who Dragged Doctor Off United Flight Have Been Fired. *New York Post*. Accessed 30 October 2018. <https://nypost.com/2017/10/17/officers-who-dragged-doctor-off-united-flight-have-been-fired/>

Unilever. 2017. Unilever Sustainable Living Plan: Progress in 2017. Accessed 1 November 2018. https://www.unilever.com/Images/unilever-sustainable-living-plan-2017_tcm244-521742_en.pdf

United Nations. 2018. Clean Water and Sanitation: Why It Matters. Accessed 25 October 2018. <https://www.un.org/sustainabledevelopment/wp-content/uploads/2018/09/Goal-6.pdf>

Tables

Table 1. Seventh Generation's environmental baseline, progress, and 2020 goals. Table modified from (Seventh Generation 2017).

GOALS	2012 Baseline	2017 Progress	2020 Goals
energy derived from non-fossil fuel sources	<p>43,000* metric tons (MT) CO₂e (absolute GHG emissions)</p> <p>1.04MT* CO₂e per MT packaged product</p> <p>* does not include consumer use or end of life emissions</p>	<p>54,000** MT CO₂e (26% increase in absolute GHG emissions from 2012)</p> <p>0.71** MT CO₂e per MT packaged product (32% intensity reduction from 2012)</p> <p>* * includes purchase of 20,000 mt of carbon offsets. does not include consumer use or end of life emissions</p>	<p>All energy derived from non-fossil fuel sources (Seventh Generation facilities, travel, commuting, Third Party Manufacturers and distribution)</p> <p>All consumer clothes washing in cold water</p>
consumer clothes washing in cold water	No baseline	No stable baseline from which to measure progress	100%
choose plants not petroleum	78% products and packaging biobased or post-consumer recycled content	84% products and packaging biobased or post-consumer recycled content	100% products and packaging biobased or post-consumer recycled content
produce zero waste	67% products and packaging biodegradable or recyclable	76% products and packaging biodegradable or recyclable	100% products and packaging biodegradable or recyclable
Source sustainably: including palm oil, virgin wood pulp, coconut, soy, citrus, corn	<p>100% Green Palm</p> <p>78% FSC® virgin wood pulp</p>	<p>100% Green Palm</p> <p>69% FSC® virgin wood pulp</p>	100% agricultural products certified sustainable

Figures

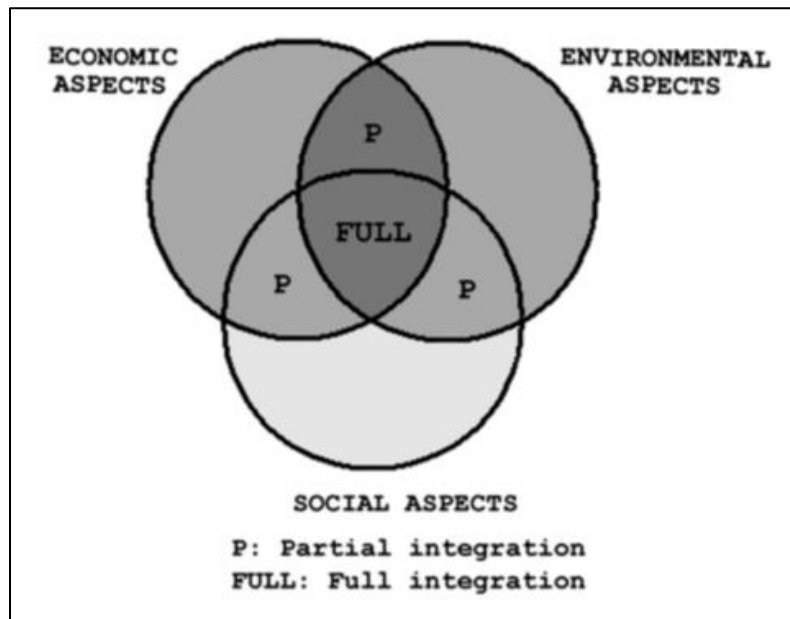


Figure 1. Venn diagram representation of the Triple Bottom Line (Lozano 2008).

*Corresponding points will be added or subtracted as outlined below using subjective judgement to evaluate companies.

Business Value

+2 Reduced risk

- +1 Less exposure to liability
- +1 increased investor attraction

+3 Potentially decreased costs

- +1 Energy efficient equipment/products
- +1 More efficient operating processes
- +1 Attracting and retaining talented employees

+1 Potentially increased revenue

- +1 Market differentiation

Environmental Value

+4 Emissions reduction

- +2 Reduced since benchmark year
- +1 Energy efficient equipment, renewables
- +1 Sustainable product

+4 Planned mission

- +1 2020 goals
- +1 2050 goals
- +1 Clear environmental mission
- +1 Has set industry standards

Social Value

+2 Employees

- +1 Stake in the company (Socially responsible 401k)
- +1 Volunteer program

+4 Community & Customers

- +1 Safe and fair-trade sourced product
- +1 Socially responsible supply chain
- +1 Clear social mission
- +1 NGO Partnership

Detrimental Results

-3 Unbalanced pillars

- 1 Business
- 1 Environmental
- 1 Social

Maximum Score Calculation

- 6 all business benefits achieved
- 8 all environmental benefits achieved
- 6 all social benefits achieved
- 0 detrimental results

20 Maximum Score

Figure 2. Triple bottom line company outcome-based success criteria (Jayleene West 2018).



Figure 3. Internal marketing process leading to increased productivity and customers (Luigi et al. 2013).

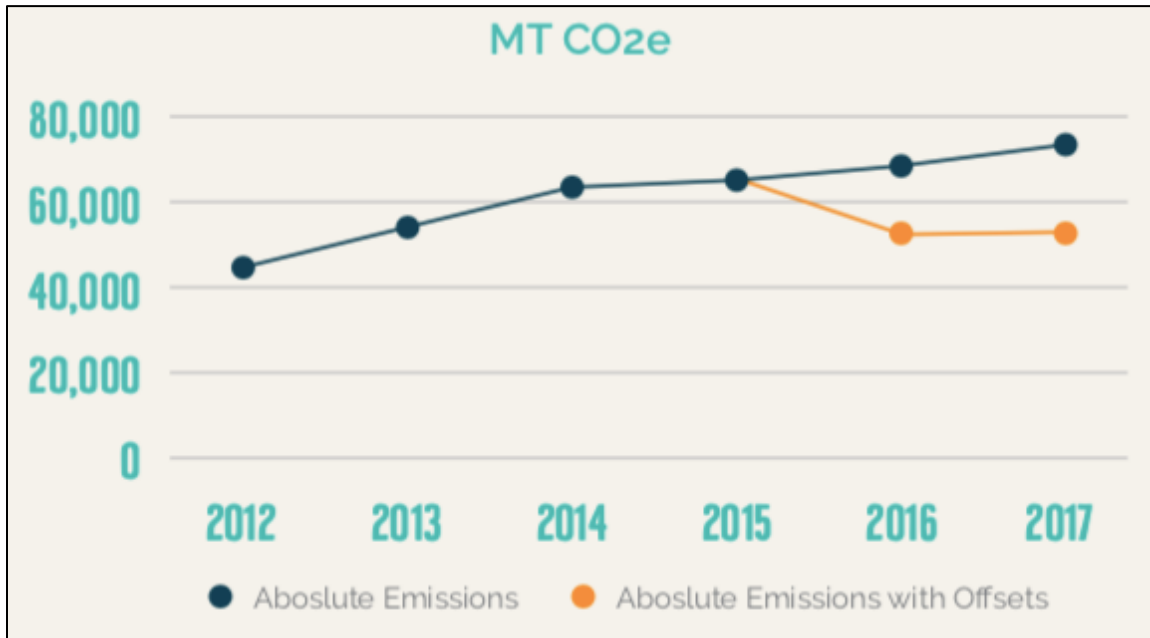


Figure 4. Seventh Generation cradle to grave MT CO₂e emissions from 2012-2017 with and without carbon offsets and renewable energy credits (Seventh Generation 2017).

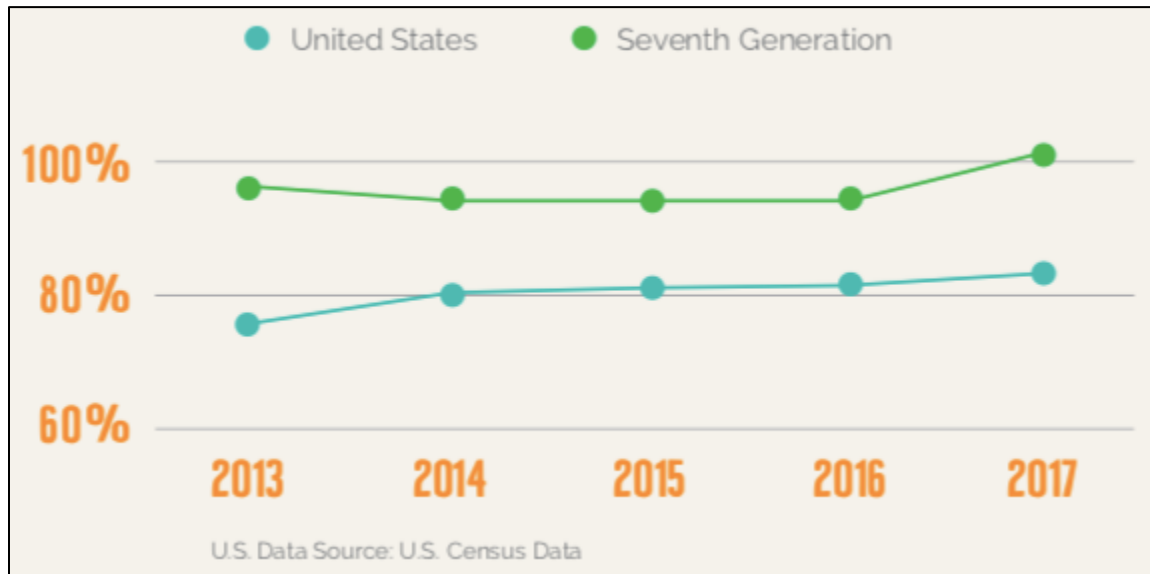


Figure 5. United States and Seventh Generation female to male earnings ratio (Seventh Generation 2017).

	2013	2014	2015	2016	2017
EMPLOYEES	133	137	153	162	137
MALE/FEMALE	43/57	57/80	64/89	65/97	54/83
TURNOVER Voluntary / Involuntary	7/5	8/3	8/2	7/5	5/32
MANAGERS Male / Female	24/21	20/10	27/11	34/23	29/28
DIVERSITY Non-White Employees	9	11	11	14	9
BEST PLACE TO WORK IN VERMONT Rankings	11	3	3	5	12

Figure 6. Seventh Generation employee metrics from 2013 to 2017 (Seventh Generation 2017).

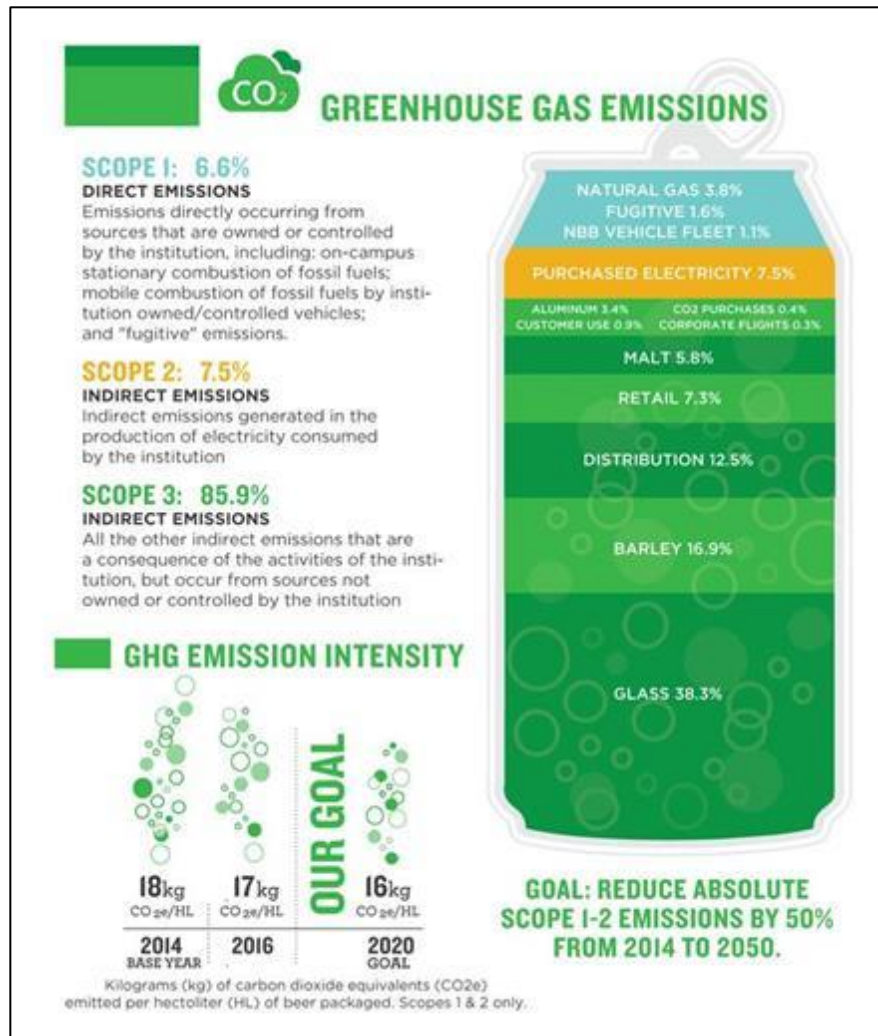


Figure 7. New Belgium Brewing GHG emissions by scope (New Belgium 2018a).

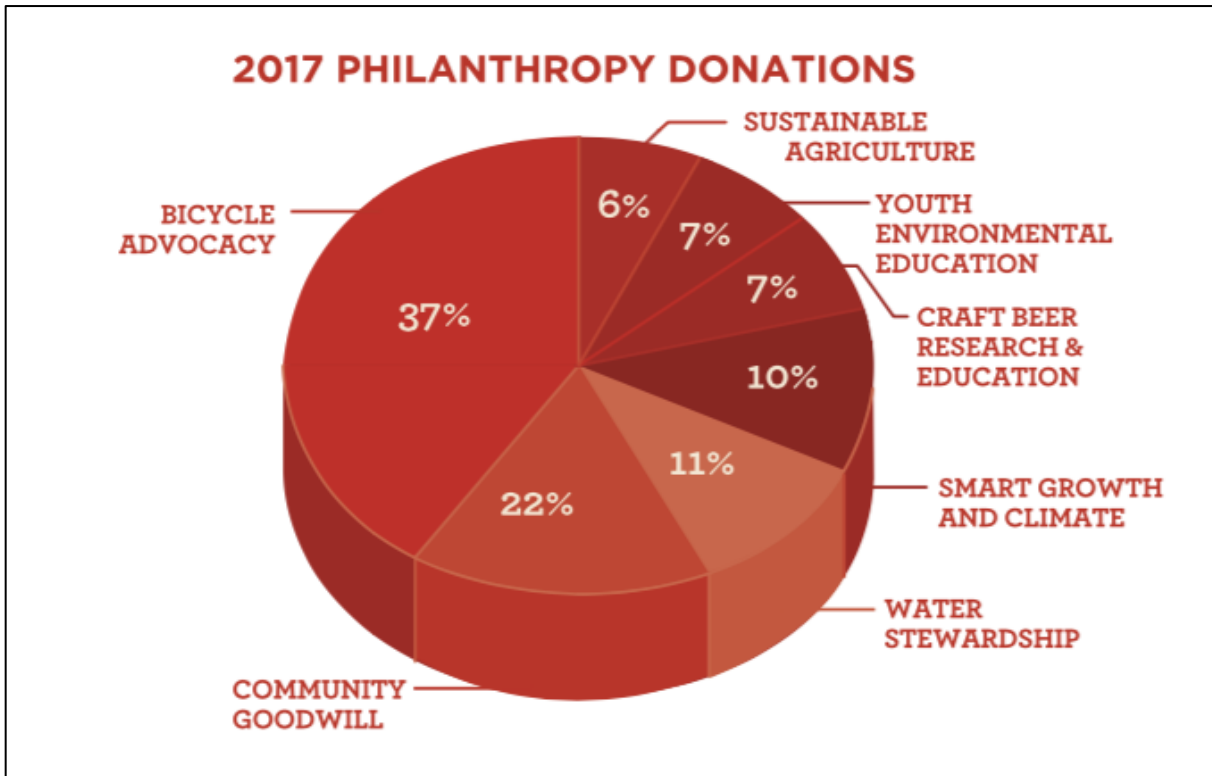


Figure 8. New Belgium Brewing Philanthropy Donations Pie Chart (New Belgium 2018a).

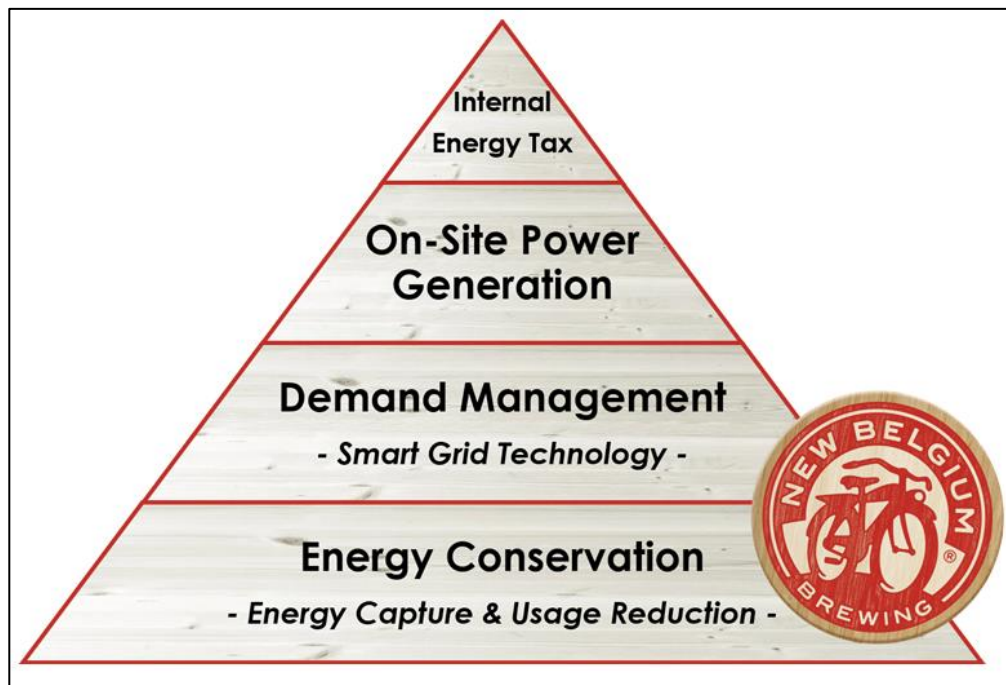


Figure 9. New Belgium Brewing Energy Pyramid. Similar to the food nutrition pyramid, New Belgium ranks its programs in terms of importance (New Belgium 2018d).

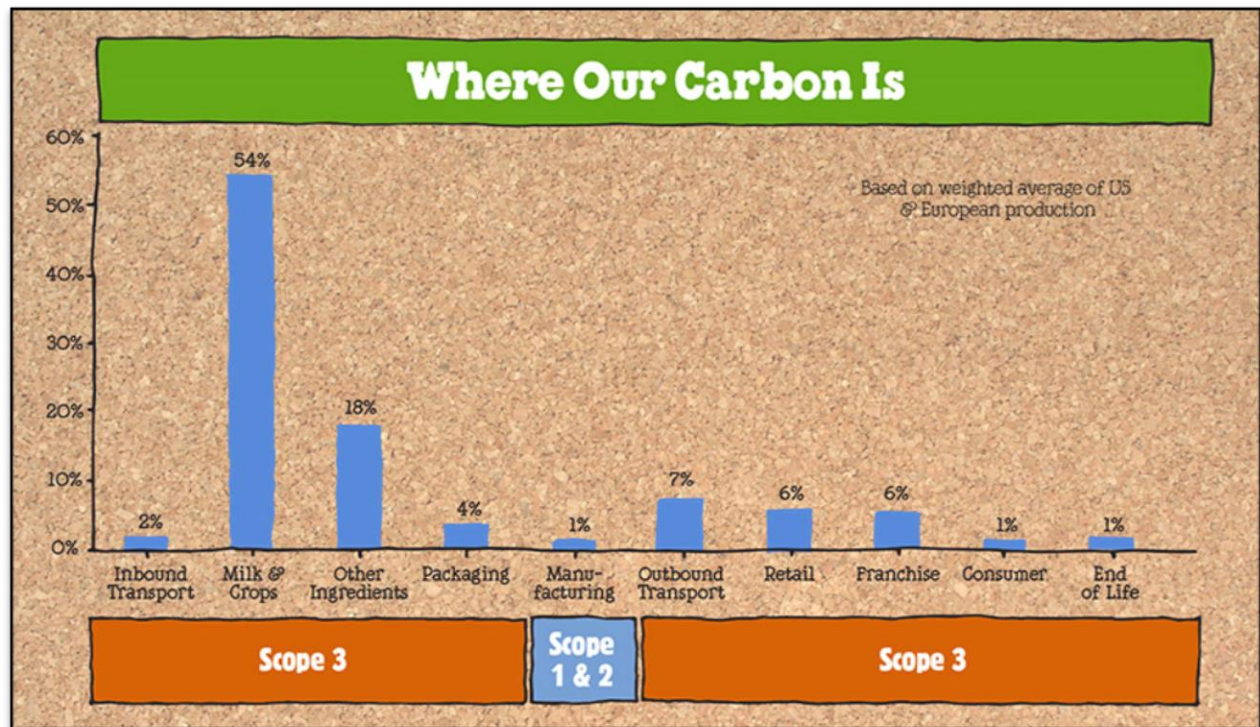


Figure 10. Ben & Jerry's 2017 carbon emissions by sector (Ben & Jerry's 2018c).

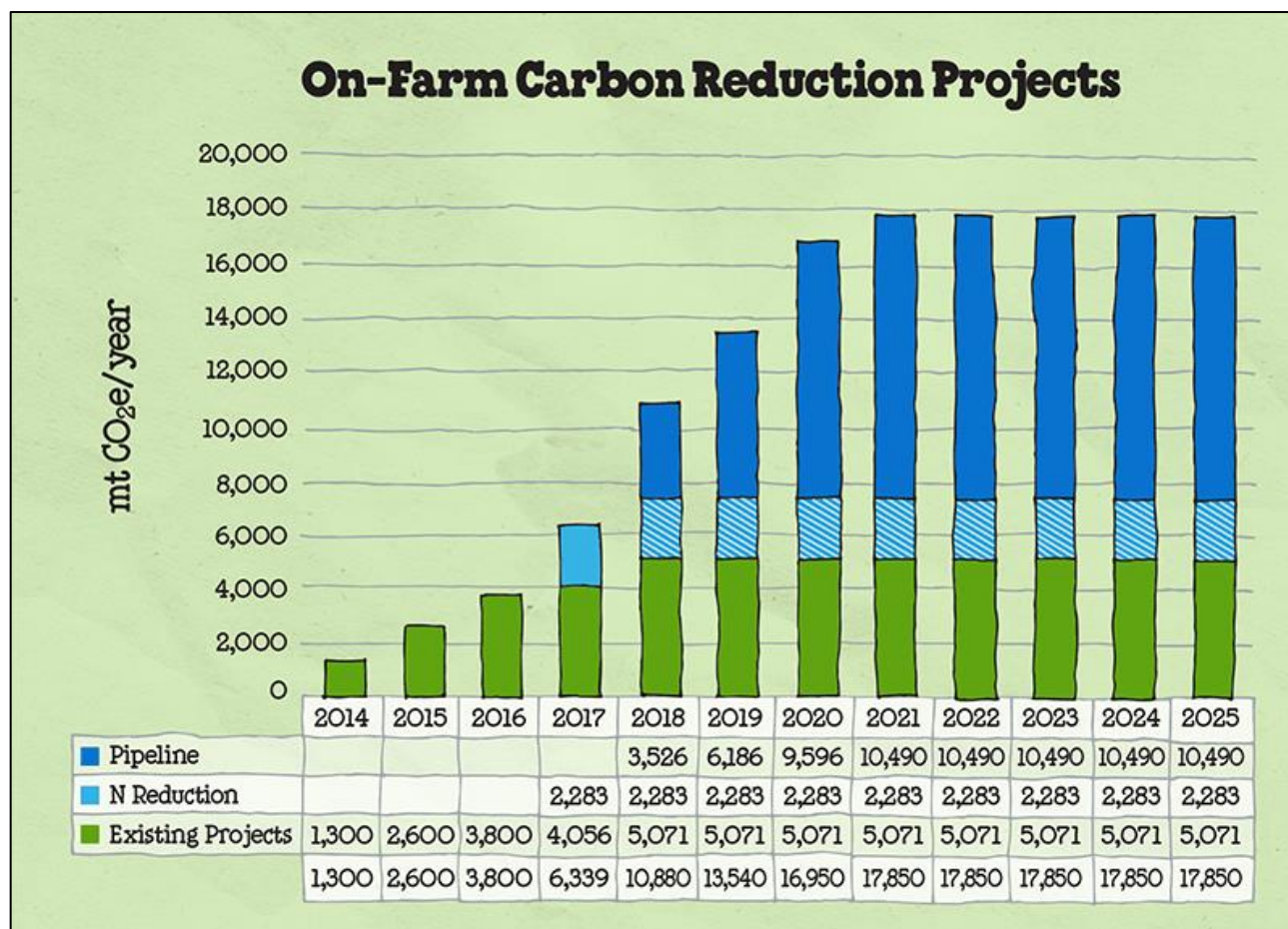


Figure 11. Ben & Jerry's plan for on-farm carbon reduction projects from 2014 to 2025 (Ben & Jerrys 2018c).

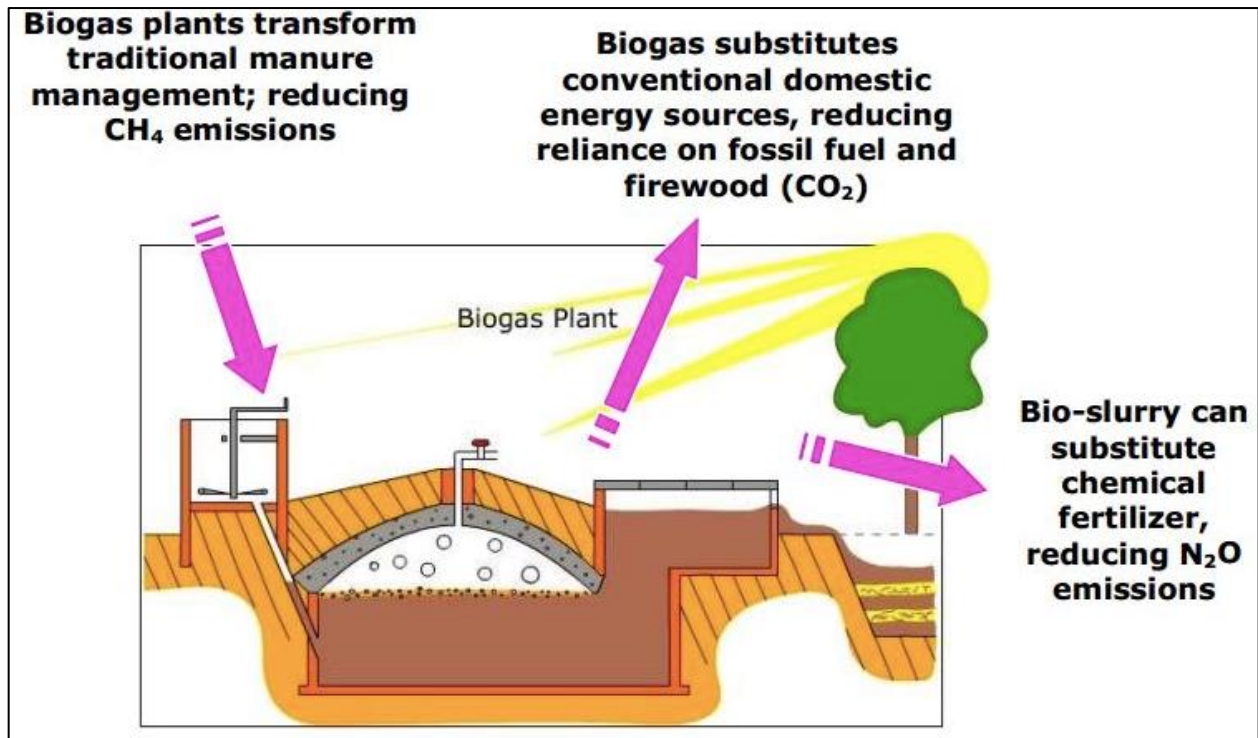


Figure 12. Diagram and benefits of small-scale digesters on agricultural farms (Spuhler 2018).

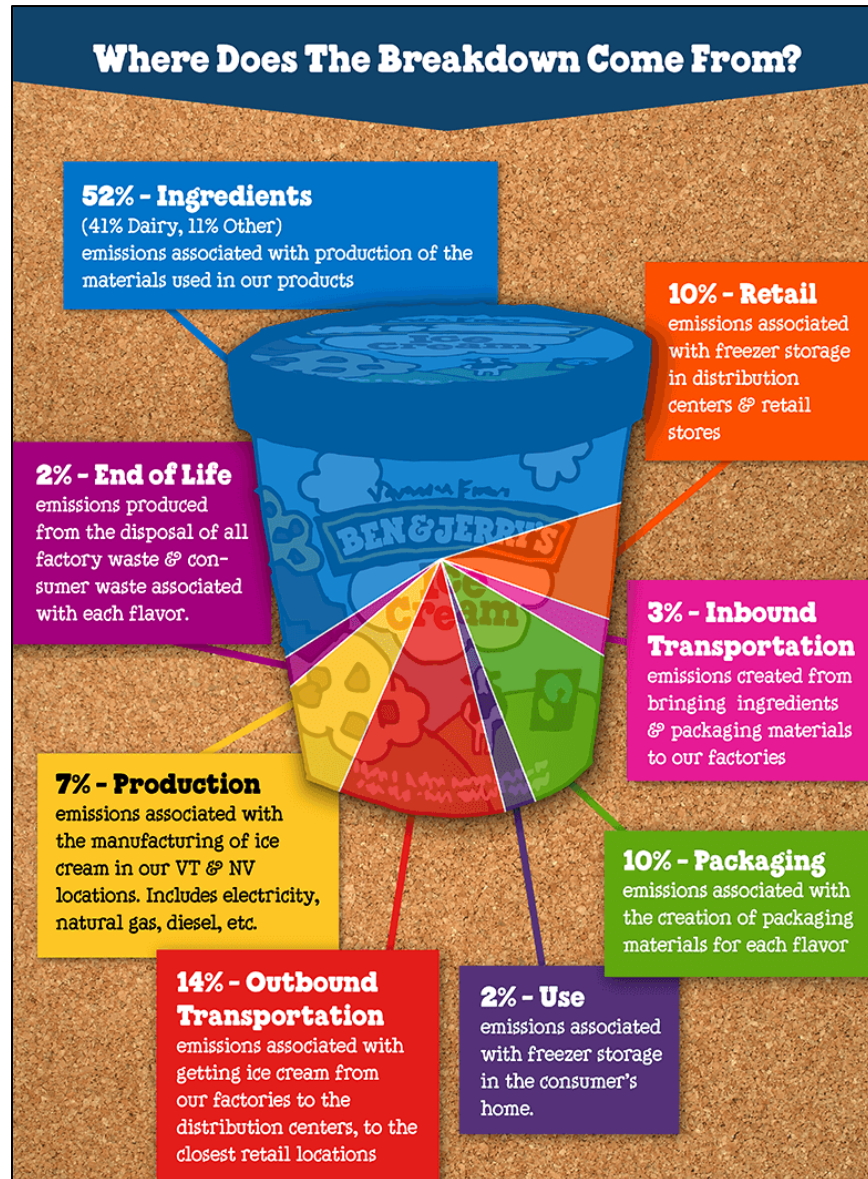


Figure 13. Ben & Jerry's 2014 Life Cycle Analysis from Farm to Spoon Carbon Emissions Breakdown (Ben & Jerry's 2018a).

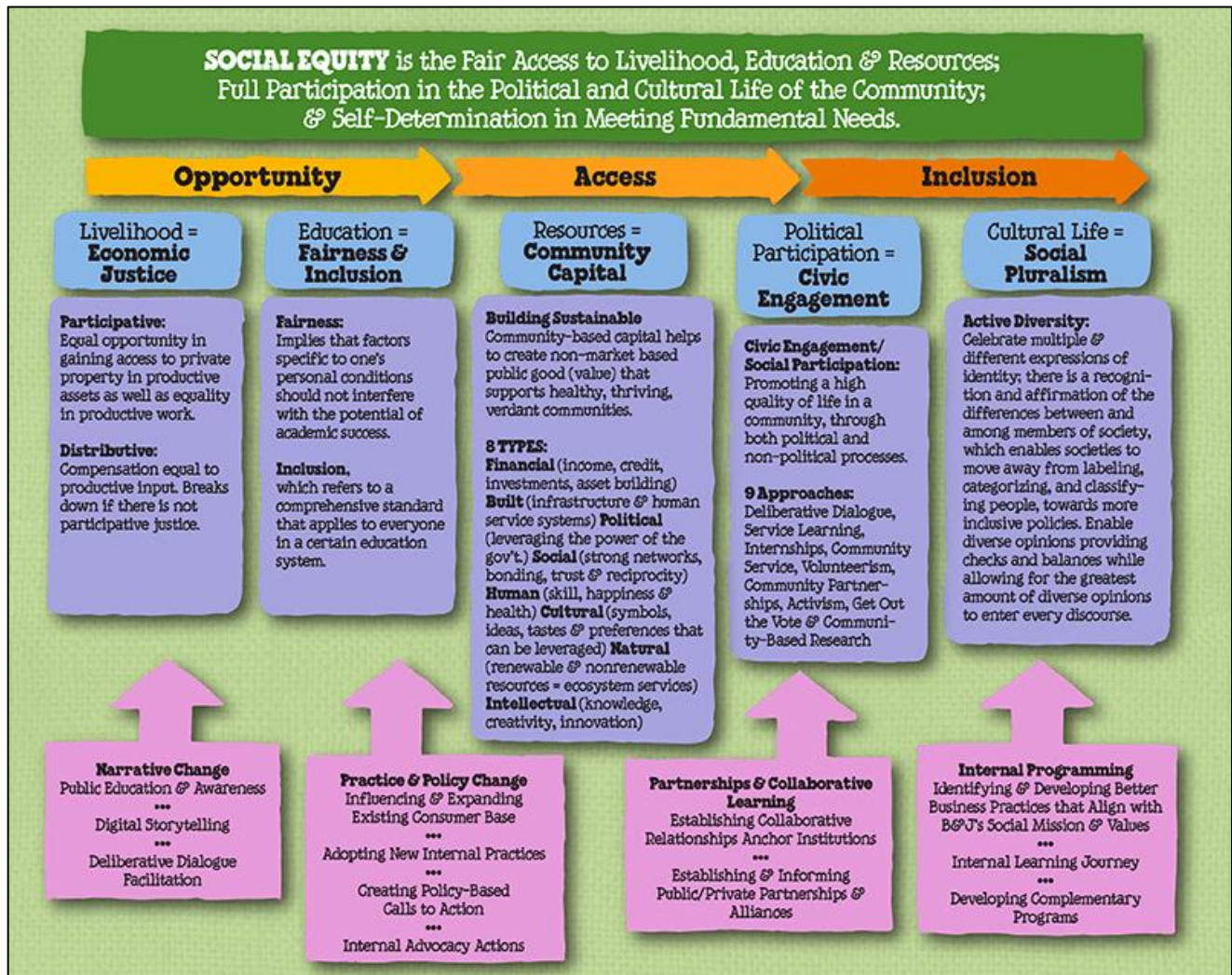


Figure 14. Social equity initiatives as outlined by Ben & Jerry's (Ben & Jerry's 2018c).

	Seventh Generation	New Belgium	Patagonia	Ben & Jerry's
Business Value	5	6	6	6
+2 <u>Reduced risk</u>				
+1 Less exposure to liability	1	1	1	1
+1 increased investor attraction	1	1	1	1
+3 <u>Potentially decreased costs</u>				
+1 Energy efficient equipment/product	1	1	1	1
+1 More efficient operating processes		1	1	1
+1 Attracting and retaining talented employees	1	1	1	1
+1 <u>Potentially increased revenue</u>				
+1 market differentiation	1	1	1	1
Environmental Value	4	8	4	6
+4 <u>Emissions reduction</u>				
+2 Reduced since benchmark year		2		
+1 Energy efficient equipment, renewables		1	1	1
+1 Sustainable product	1	1	1	1
+4 <u>Planned mission</u>				
+1 2020 goals	1	1		1
+1 2050 goals		1		1
+1 Clear environmental mission	1	1	1	1
+1 Has set industry standards	1	1	1	1
Social Value	5	6	5	6
+2 <u>Employees</u>				
+1 Stake in the company (Socially responsible 401k)	1	1	1	1
+1 Volunteer program	1	1	1	1
+4 <u>Community & Customers</u>				
+1 Safe and fair-trade sourced product	1	1	1	1
+1 Socially responsible supply chain	1	1	1	1
+1 Clear social mission		1		1
+1 NGO Partnership	1	1	1	1
Detrimental Results	-1	0	-1	0
-3 <u>Unbalanced pillars</u>				
-1 Business				
-1 Environmental				
-1 Social	-1		-1	
Total	13	20	14	18

Figure 15. Outcome-based scoring matrix of all four case studies (Jaylene West 2018).

7. Appendix A

Email Interview sent to Sarah Fraser (a Sustainability Specialist at New Belgium) on October 30th, 2018 and Sarah's Response to the Questions on December 5th, 2018

1. How much did the company save after the energy audit? The audit was conducted in an effort to understand our carbon footprint. We didn't actually reap any savings from the audit, but rather learned a lot about our energy use and emissions. One thing we learned was that the single biggest emitter of CO² in our process was the electricity we used, supplied by coal-burning power plants. As a result, New Belgium employee-owners voted to dip into their bonus pool to subscribe to the City of Fort Collins' wind program at a premium of 2.5 cents more per kWh than fossil-fueled electricity. Thus: New Belgium Brewing became the country's first brewery to purchase 100% of its electricity from wind power in 1999.

2. How much is it saving using wind power? We didn't actually save money by using wind, but instead paid more for our electricity. But we knew it was the right thing to do for the community, the planet and in the long run, the business. We're also no longer part of the wind program. When we started purchasing wind power, 100% of it was generated by turbines in Medicine Bow, WY which are tied directly to our grid. The City erected an additional turbine/monopole just to supply New Belgium with our electricity for the next ten years. In fact, our commitment as the single largest subscriber in the program allowed Fort Collins Utilities to become Colorado's first electric utility to offer wind power. This is an example of "the ripple effect" that we strive to have, finding ways to create a positive impact that ripples throughout our community & supply chain.

Currently, about 17% of the City of Fort Collins' renewable energy comes from the Medicine Bow wind farm, and the rest comes from wind-generated RECs from Wyoming, Oklahoma and Kansas, as well as landfill gas RECs from Idaho. In 2013, we re-evaluated how we could make the most impact and greatest ripple effect with the dollars we invest in renewable energy, and we made the decision to move away from purchasing RECs and to instead implement our Internal Electricity Tax as a means to invest in future renewable energy and energy efficiency projects directly within our facilities.

3. Are there any other direct savings the company witnessed after reducing consumption from maybe packaging or water intensity? A couple of our coworkers working on the bottling line re-engineered the line to eliminate cardboard dividers from 12-packs before it was standard practice. We're saving almost \$1 million/year in materials and removed almost 450 metric tons of cardboard from our supply chain. That doesn't include the cost savings in labor reduction for less down time on the line by eliminating the divider-inserting equipment and the associated cleaning and repair/maintenance. We also capture and reuse waste heat in a number of places throughout the brewery. For example, we use a steam condenser to capture and condense steam generated during the boil and use that to heat the next batch of beer. On our bottling line we pre-rinse the bottles before they're filled. We capture and reuse this rinse water for a second exterior rinse and save roughly 1 million gallons of water/year.

4. Employee retention is an impressive 93%, if you have a method of calculating or estimating this, how much do you think the company is saving on training costs due to the high retention rate? Thanks for recognizing the retention rate as impressive. We agree! And it's definitely something we as a company celebrate and remain grateful for. Our coworkers are what make this company so great, and to have coworkers that have long careers here is mutually rewarding. The cost of turnover and training is such a hard number to figure, and one that can vary by thousands of dollars depending on the role. While we don't have a number to speak to, we recognize that there's certainly a cost savings to our bottom line because of the high retention rate. Moreover, we experience an intangible added figure to the bottom line because of the vast wisdom, experience, and solid working relationships that retention yields. Many of our coworkers have worked together for years, in various capacities, and have an energy and teamwork that you only get through working together for a period of time. We celebrate the high retention of coworkers frequently and spend a lot of time and energy focused on how we can maintain that.

5. A year after NBB went 100% employee owned, the sales jumped 20% by the following year. Are there any other company initiatives that have caused a jump in sales, whether it be due to environmental or social initiatives? Great question! I can point to a few initiatives we've participated in, but I don't have the data on how sales were influenced. Here are a couple examples:

This year we brewed a beer with hemp to raise awareness around the need to modernize industrial hemp laws. The Hemperor HPA also included a phone to action campaign where beer drinkers could text HEMP to 40649 to ask legislators to support legalization of industrial hemp.

Collaboration beers with Ben & Jerry's Ice Cream (Chocolate chip cookie dough ale 2016 and Salted caramel brownie ale 2015). Ben & Jerry's is a fellow B Corp and proceeds from sales of the beers and ice cream were donated to ProtectOurWinters.org, a non-profit organization using winter sports to draw attention to climate change

In 2010 we brewed Skinny Dip. In partnership with Patagonia, Clif Bar, and Savethecolorado.org we helped draw awareness to the many challenges facing the Colorado River watershed.

Each of these beers received many accolades and had lots of loyal beer drinkers. We find that speaking our voice and leveraging our brand for causes we believe in resonates with our beer drinkers. In a world where we can all "vote" with our dollars, we're grateful for those beer drinkers who support us with their loyalty.

6. How has NBB motivated other companies in the brewing industry to follow it's sustainable path? It's important to us that we be authentic and transparent. We've made good progress in reducing water usage, energy usage, waste, GHG emissions, etc., but we're not perfect and we don't have all the answers. We talk with brewers who reach out to us and share our successes and challenges. Members of my team also regularly speak about our work at events such as the Craft Brewers Conference. One of my team members chairs the sustainability committee of the Brewers Association. This committee has created energy, water, waste and building efficiency sustainability manuals for all craft brewers to raise the bar in the industry. They've also created a set of benchmarking tools to help brewers measure how successful their sustainability efforts in their breweries are.

7. Does NBB have specific objectives beyond 2020 to meeting the 2050 goal of reducing 50% of scope 1 and 2 emissions? We're doing strategic planning right now and working on developing these strategies as I write, including more on-site renewable energy and energy efficiency projects.

8. In terms of metric tons of carbon, how much has NBB saved from emitting thus far? I need to do some homework here and check with my team members. My gut feeling is that this is going to be hard to quantify over the life of NBB. 2007 was the year we commissioned our first GHG lifecycle analysis for Fat Tire (it was the first LCA done for a beer). The next year we commissioned a GHG comparison of conventional vs. organic hop and barley agriculture. Through that study we learned that in a nutshell, organic agricultural practices on their own were not a magic bullet solution for reducing emissions associated with growing our barley, and that it's only when a farm adopts holistically sustainable land management practices that we see a sizeable reduction in the carbon footprint. And we also found through our conversations with some of the farmers that organic didn't feel attainable or realistic for them based on the strict guidelines associated with it, and we realized that the prices for organic hops & barley at a large scale were also prohibitive at least at the time, which then led to us exploring what would sustainable agricultural practices look like for our ingredients. Then we learned about Salmon Safe certification, a regional certification administered by a non-profit organization of the same name working with all kinds of farmers to alter land management practices to better ensure healthy watersheds for native salmon. We're now in the process of learning about carbon farming or carbon-friendly agriculture. Growing barley is a big source of our scope 3 emissions, but it's hard for us to work in this area because there's a layer between us and the growers (lots of farmers sell their barley to a few big maltsters and we buy malted barley from them). We're also a tiny percentage of the beer market nationally so we don't have a big lever to pull.

8. Appendix B

Organizations that Focus on Sustainable and Fair-trade Agriculture

The Sustainable Food Trade Association seeks to teach organic farms sustainable business methods (SFTA 2018). The company is sponsored by many brands including Annie's, Organic Valley, Clif, and Guayaki. The Rainforest Alliance is an organization that works with farmers to educate them on sustainable agricultural practices which equates to less fertilizers, pesticides, and tilling used that would otherwise throw off the balance of ecosystems (Rainforest Alliance 2018). These organizations can help businesses find sustainably sourced ingredients.