

Environmental science lab



**ASSIGN
BUSTER**

Environmental Science Lab Starbucks is the global leader in coffee retailing. The company has thousands of coffee shops distributed all over the world. Most of the coffee shops are located in U. S and U. K. For every cup of coffee sold by Starbucks, there are underlying costs to the environment. It is therefore important to make an evaluation of the processes and materials used to get the coffee on the table with an aim of determining with certainty the amount of environmental impact of these coffee shops.

Most of the coffee cups sold by Starbucks coffee outlets all over the world including Denver Colorado are made of paperboard. The constituent materials include trees, ink, plastics. The process of making the paper cups uses multiple fuels. 0. 11 Kg of CO₂ is used when a cup measuring 16 ounce is transported from manufacturing site to the retail outlets. For every cup made and shipped to a coffee outlet 0. 09 m² of natural habitat is lost. However, it costs 0. 27 Kg of plant and animal life potential to manufacture and ship the same size of cup to its final destination. Ideally speaking, it would take approximately 1. 7 billion cups together with their sleeves to trigger one-potential species extinction (Starbucks web). The cups however, have approximately 10% post-consumer recyclable material. The cups are manufactured using bleached paperboard. This is in accordance to the requirements of FDA regulations. However, the cups are laminated with a polyethene referred to as resin. It is argued that the resin in the paper cups is not environmental friendly. When poorly decomposed, it produces greenhouse gas that is believed to trap more than 20 times the heat trapped by CO₂ (Narang web).

Coffee is the primary ingredient for coffee drinks. Starbucks consumes approximately 2% of global coffee production. Most of the coffee is sourced

through Coffee and Farmer Equity (C. A. F. E.) practices. According to the 2010-year report, Starbucks purchased 122 million kilograms of coffee out of which 103 million kilograms were purchased through C. A. F. E. guidelines. The coffee is obtained from all parts of the world. However, coffee outlets get their share from the nearest coffee sources. However, transporting coffee from place of production to various stores and disposing various wastes from the outlets produces approximately 81, 000 tons of CO₂ (Narang web). Starbucks gets its milk supplies from local dairy firms. For instance, the coffee outlets in China get their milk from milk suppliers from China. There are many milk suppliers and milk companies from which Starbucks outlets get their milk supplies. Some of them include Leprino Foods Company, Longmont Dairy Farms among others.

On average, Starbucks uses one billion KWH of energy for all its coffee outlets all over the world. Out of these, 580 million KWH was obtained from renewable energy sources. However, it is projected that approximately 100% of the energy will be obtained from renewable sources by the year 2015. Just like any other food outlet store, Starbucks uses thousands of liters of water daily. It is estimated that water use per square foot for every store accounts for approximately 72. 4 liters every month. Most of the water is used for making coffee while the rest is used for sanitary purposes (Starbucks web). In summary, approximately 23 billion cups were used in year 2010. Tons of wood used amounted to 1. 4 million with 9. 4 million trees cut down. British thermal energy used (BTU) in the process was approximately 7 trillion. 5. 7 billion gallons of water were used and more than 360 million pounds of solid waste produced (SustainabilityisSexy web).

Works Cited

<https://assignbuster.com/environmental-science-lab/>

Narang, Sonia. Carbon With That Latte? Forbes. 2012. Web 03, February 2012 http://www.forbes.com/2007/07/02/starbucks-emissions-environment-biz-cz_sn_0703green_carbon.html> Starbucks. “ Starbucks Global Responsibility Report; Goals & progress report 2010”. Starbucks. Web 03, February 2012. <http://www.starbucks.com/responsibility/learn-more/goals-and-progress/energy#open>> SustainabilityisSexy.com. The Basic Problem with Coffee Cups. Sustainability is Sexy. 2009. Web 03, February 2012.