With rising concerns on sustainability of plastic usage, awoke firms and associations has been on an active search for plastic waste reduction strategies. Strategies firms and associations used can be broadly distinguished in to two major strategies: Preventing collateral plastic waste where plastic usage is mandated and replacing plastic usage with a substitute material.

Example of an association that’s focusing on reducing unnecessary plastic is SME, a non-profit association renowned for educating and advancing the manufacturing industry. Manufacturing industry is one of the industries where plastic usage is mandated. Plastics are widely used in the industry for it’s light weight, endurance, and cheap cost and it’s known to be impossible to find a substitute. SME has invented a machine learning technology to precisely calculate the amount of plastic used to prevent plastic waste. This strategy is used when an industry or corporates can not avoid plastic usage but to limit the usage.

Another strategy we found most common is to replace plastic with a substitute. Best example of a firm using this strategy is Starbucks. As we all know, Starbucks is one of the most renowned and beloved coffee franchise. It has been a long time tradition for their drinks to come in a paper cup when the drinks are hot, and plastic cup when it’s cold with their signature green plastic straw. Recently Starbucks has moved on to changing their product design and using substitutes for plastic. Starbucks has come up with “straw less lid designed by Starbucks; its plan to offer straws made from alternative materials like paper or compostable plastic for Frappuccino blended beverages” (#), and sales of reusable mugs, cups, and tumblers.

(#)Shiwnarain, M. (2018). By 2020 Starbucks hopes to eliminate plastic straws from their stores. *Science Trends*. <https://doi.org/10.31988/scitrends.22485>

(#) should be edited according to the number of the reference after final edit

How much do you know about plastic? Plastics are synthetic or semi-synthetic materials that use polymers as a main ingredient. Plastics have been used all around the world for numerous benefits such as it’s light weight, easy to process, cost-effective, durable, and resistant to corrosion and moisture; but what attracted consumers and producers in the use of plastics was the fact that plastics are extremely cheap to produce and the idea of it’s “recyclability”.

Plastic’s cheap cost and the concept of recyclable goods plastic promotes resulted in industries mass producing and consuming plastic. Truth is that only 9% of the plastics produced are recycled and when not recycled, it takes up to one thousand years for plastic to degrade in a landfill. After degrading, plastic does not break down completely and becomes micro plastics that pollute the environment. Plastics harm ocean life, terrestrial wildlife, takes up space due to long degrading, produces chemical pollution, and creates micro plastics.

An estimate of 13 million metric tons of plastic ends up in the ocean every year. That is equivalent to two garbage truck’s full load worth of plastic dumped into the ocean every minute. Fish, seabirds, and marine mammals can be put in danger from becoming entangled in or intaking plastic debris which can cause suffocation, starvation, and drowning.

 Plastic can also affect terrestrial life when it degrades. When plastic degrades can become micro plastic, they can carry disease-causing organisms and act as a plague that carries diseases for the environment. These micro plastics can be found anywhere even in tap water, in the soil, and in the air we breathe.

Unlike how plastic is promoted or advertised, most plastics are not recyclable and does not biodegrade. These non-recyclable plastics can cause serious problems and is a threat to our land as of the 8.3 billion tons of plastic that is produced, 6.3 billion ton of plastic ends up on land. It is projected that the ocean’s surface will be covered by plastics by 2040 and not too far beyond that time for our land.

One of the methods of degrading plastic is burning them. Plastic releases dangerous substances such as heavy metals and POP (Persistent organic pollutants) into the air which can develop asthma and cancer on human beings. Plastic is also responsible for estimate of 3.4 % of total green house emissions.

Use of plastic needs immediate attention from everyone around the globe to avoid catastrophic damage on earth and raise awareness on the impact of plastic use. Plastic’s “recyclable” promotion is overexaggerated and the world needs to address the issues plastic usage is raising.