Plastics Environmental Context

Global Context

SPBs are a relatively new phenomenon on the world stage. In 1970, the “miracle plastic” polyethylene terephthalate (PET) was discovered. PET enabled the production of strong, cheap, lightweight plastic which revolutionized the bottled beverage industry towards what it is today.¹ In the 1980s, plastic water bottles became identified with health and beauty when supermodels began carrying Evian water bottles at fashion shows in New York. Promising good health, superior skin and hair, bottled water was marketed as being the healthier lifestyle choice everyone needed.²

PepsiCo joined the plastic revolution in 1994 by introducing Aquafina while Coke followed in 1999 by launching Dasani. From 1960-1970, the average American purchased 200-250 packaged drinks a year. By 2017, Americans were buying one million plastic beverage bottles every minute according to Euromonitor International’s global packaging trends report.³ Touting omnipresent convenience and higher quality water, beverage companies ushered consumers towards buying more and more SPBs.

Behind the marvel of the low-cost, disposable beverage was the environmental truth—single-use plastic water bottles require two thousand times the energy used to produce tap water, and at least 450 years to completely degrade.⁴ While research on biodegradable or compostable plastics has been successful, scaling up these solutions requires much greater investment, thus limiting the current impact of such innovations. Further, these innovations depend upon collecting and properly treating the end-cycle plastic waste, which is a difficulty considering a largely broken and ineffective global recycling system. Wealthy nations accustomed to selling their recyclable waste to developing nations face a crisis after China declared in July 2017 that it would cease importing 24 varieties of waste, including plastic, beginning in January 2018.⁵

¹ www.petresin.org/faq.asp
³ Ibid.
⁴ Ibid.
International efforts, such as the installation of 100 public water fountains in London, distribution of edible seaweed pouches of water instead of bottles at the London Marathon in 2019, and the banning of SPBs in Concord, Massachusetts and Australia have emerged as attempts to tackle the crisis. Yet the problem remains unsolved in developing countries where access to clean safe drinking water is limited and bottled water is the only safe option. Yet efforts are seen in those nations too, such as Kenya’s ban on single-use plastics at beaches, in national parks, forests, and conservation areas. NGOs such as the #breakfreefromplastic movement have encouraged individuals and organizations to take action through beach clean-ups and advocacy for polluting companies to bear greater responsibility for producing SPBs. Though many players in the international community are contributing to SPB reduction, the plastic-free, sustainable future imagined by impassioned organizations and individuals alike is far from a reality.

6 https://resource.co/article/100-public-water-fountains-be-installed-across-london
7 https://www.forbes.com/sites/trevornace/2019/04/29/london-marathon-runners-were-handed-seaweed-pouches-instead-of-plastic-bottles/#602229972ba2
9 https://www.globalcitizen.org/en/content/single-use-plastics-banned-kenya-protected-areas/
10 https://www.breakfreefromplastic.org/