

Digby Regional High School

The War on Waste

Aaliyah Horner
Grade 12 Imm

Summary

I've always had a passion for preserving the environment. I was taught at a young age how important our world was. I learned this through the program Girl Guides of Canada, which I had joined in 2012, and through that experience, I've learned about how important it is to maintain our environment. Some of the activities we did often were beach sweeps around our community, garbage pickups in our neighborhoods, planting many trees, and reusing items by making crafts or turning them into much-needed items. One of my favorite environmental activities was always the beach sweeps, as I come from a fishing community and family, I always felt the need to help out because my family's livelihood contributes to the pollution in the ocean. This includes cleaning what comes off the fishing boats like rope, buoys, pieces of traps or whole traps, gloves, rubber bands, pieces of fiberglass, garbage, and lots of other things. Many of those items we were able to recycle and reuse. For example, we were able to reuse the ropes, traps, and rubber bands. Many people in my community use those things to create something totally different and handmade or to even use it for their purpose. My all-time goal while doing these things was to always create a safer environment for future generations and to set an example to show everyone that they should all do their part by helping keep our environment clean.

My more recent environmental activities have been reducing food waste at my place of work. Last March I got a job working at a farmer's market and I quickly noticed how much produce was being wasted by being thrown away if it wasn't in perfect condition. That being said, anything that had a bruise, an indent, or some sort of discoloration would all be considered bad produce, but in reality, most of that produce would still be in great condition. Soon enough I asked the owner if there was anything we could do to potentially end the excessive amount of food waste, in which we came to the decision that we would start cutting and repackaging most

produce that wasn't in perfect condition. In the summer fresh produce would come in from the fields daily. With so much coming in every day sometimes bins of cucumbers or boxes of strawberries would start to look non-appealing to consumers' eyes. So with that happening, I helped suggest we try to make something out of the produce going bad. For example, we tried pickling many cucumbers and made lots of strawberry jam! Doing so resulted in much less to no food waste in our store and even the produce that sadly had to be thrown away, gets to go to the farm animals that enjoy it no matter what it looks like. I'm so thankful that I was given the opportunity to help the farmer's market reduce their amount of food waste and be able to continue to help them when I can.

Executive summary

Food waste is one of the biggest problems globally, resulting in it being the leading contributor to climate change. Many foods wasted find its way into landfills where food is left to decompose, creating a strong gas called methane gas. Methane gas is a very strong greenhouse gas that is a lot stronger than the most common, which is carbon dioxide. Methane affects climate change drastically because it can trap up to 80% more heat over 20 years compared to carbon dioxide.

In both Canada and the United States, a lot of the food produced ends up in landfills that later can do some significant damage to our environment. In hopes to better our environment, both Canada and the United States have made a goal to reduce their amount of food waste by 50% by the year 2025 and 2030. With such an ambitious target a plan of action had to coincide. Organizations had to work together with food producers, harvesters, retailers, consumers, as well as governing bodies as the effects of the food waste touched all levels of humanity. With many ideas and targets in place, a plan of action will transpire.

The province of Nova Scotia is a leader in Canada when it comes to reducing food waste due to the goal they implemented in 1995 which was to achieve a national waste diversion target of 50%. They were able to reach their targeted goal by the year 2000 by implementing strict and advanced recycling and diverting systems in place and successfully informing the province of the long-lasting effects this issue would have on our environment.

A solution I think both countries can do to help pinpoint this issue is to implant an electronic monitoring system into every compost bin that can keep track of the weight of waste being put into each bin weekly. Doing so would help the government have a better understanding

of what demographic territories, age groups, ethnicity, and household incomes have a higher contribution to food waste and allow municipalities to hone on specific areas to create more awareness about the problem.

Food waste is a problem all around the world. On the National Zero Waste Council website, it says that “ Globally about half of all food produced is not eaten. This is not only a waste of food but also of the resources associated with its production, processing, and distribution.” (*The Issue*. NZWC. (n.d.)). Food waste is where produce or other perishable items are tossed before or after it reaches retail stores or consumers, in Canada more than a third of the food produced ends up being wasted and the more food that is wasted can build up and affect the global environmentally, socially and economically. The United States is very similar to Canada when it comes to food waste. In the States, approximately one pound of food is wasted per person daily, which can add up annually. Both Canada and the States have done similar things to reduce their excessive amount of food waste. For example, they have both created challenges where businesses can be awarded for coming up with new strategies to prevent such waste loss.

In Canada, our food waste reduction target is to reduce the amount of food waste by 50% by the year 2025. Food waste is a substantial national problem in Canada, resulting in more than a third of food produced going to waste. The majority of the food waste ends up in landfills, which in time decomposes; ultimately creating an additional problem of greenhouse gas emissions.

Methane is a gas that contributes to the warming effects of the earth, this is created by the decomposition of these organic materials. Methane is a gas that will require substantial efforts to reduce emissions in the atmosphere as it is a significant contributor to trapping heat in the atmosphere and creating the earth's temperature to rise, resulting in global warming. Methane is a much stronger gas than carbon dioxide due to its ability to trap 80% more heat over a 20 year period.

One of Canada's ways of reducing food waste was to create a “ food waste challenge”. The challenge is divided up into two groups which are stream A and stream B. Stream A is for business models that prevent food waste, which is businesses that can create a new solution that can prevent food waste across the food supply chain. Stream B is for business models that divert food waste, which is businesses that can create new methods that can create value out of food waste, food by-products, and surplus foods. Doing this challenge helps Canada learn new ways and techniques to reduce food waste and also helps encourage businesses to reduce food waste on their end as well.

Another initiative Canada has done recently to reduce food waste was to create a surplus food rescue program. This program was created to help with the excessive amount of food that was going to waste by purchasing it and giving it to people in need. COVID- 19 had a huge impact on surplus foods due to many restaurant closures, in result many manufactures and businesses had lots of surplus food but no one to sell to. So instead of wasting the food, the surplus food rescue program would buy the excessive foods and donate to organizations that help people in need.

In 2018 the Environmental Protection Agency (EPA) in the United States had estimated that food materials were reaching their landfills and combustion facilities due to improper disposal of food waste and food loss, this accounted for more than any one single material that had been discarded in the everyday lives of citizens. While evaluating strategies to help the combat mission of climate change, setting a targeted goal to lower these areas of waste would in turn contribute to many other national problems such as poverty with food insecurities.

Considering that 35.2 million Americans had been living in a volatile insecure food security household.

The EPA joined forces alongside the United Nations FAO (Food and Agriculture Organization of the United Nations) to set targets and goals for 2030, to reduce the amount of food waste and loss by a considerable amount of 50 percent. With such an ambitious goal it will take all levels of the food supply chain, government, and private organizations to the end-users as well as a unified collaboration to successfully obtain these targets.

With the targeted goal for 2030, the EPA must use tactics such as sustainable management of food practices which is a systematic method with an approach to reduce wasted food and the impacts of the wastes. By introducing an approach that emphasizes the importance and value associated with food waste/loss reduction. Helping businesses and consumers save money, connecting families and communities in need with usable nutritional resources for consumption and education as the food waste/loss impact is detrimental to effects on climate-altering changes to OUR planet.

To reach their goal by 2030, one of the ways the U.S is trying to reduce their food waste was to create a challenge called the “food recovery challenge”. The challenge is described to be a “voluntary incentive program in which organizations and businesses set data-driven goals, implement targeted strategies to reduce wasted food in their operations, and report results to compete for annual recognition from EPA.” (Learn about the food recovery challenge, 2021). The challenge encourages everyone who participates to follow the food recovery hierarchy to prioritize their actions to divert and prevent food waste.

In 1995, the Government of Nova Scotia had made a goal which was to achieve a national waste diversion target of 50% by the year 2000. The goal helped Nova Scotians understand that food waste affects us environmentally, socially, and economically. Nova Scotia was able to reach the national goal and lead the country in solid waste reduction by establishing a strict and advanced recycling and diverting system. Which has proven to work, Nova Scotia has been a global leader in the way they facilitate their recycling programs. However, more can be done when it comes to food waste by diverting the food loss and reorganizing the food waste. Divert Nova Scotia has partnered with many retail stores and ensured food that is still consumable to humans be available to such organizations as Feed Nova Scotia. In return, the retailers receive a tax credit based on the value of the products, a win-win situation for both organizations.

Divert Nova Scotia wanted to evaluate the waste that was not suitable for human consumption. How can this material be utilized to its full potential and divert the landfill? By creating a sorting facility that will depackage, separate, and decontaminate the product before processing it into animal feed. Also, this type of machinery to depackage foods will be an innovative tool to assist in the combat of food waste reduction.

One measure to reach the food waste target would be to add a monitoring system to the amount of food going in compost bins. I can envision a chip which is calibrated to weigh the food weekly and is monitored through the municipality. It would also be a law which would enforce community members to track or have an additional calibrated smaller bin for

compostable storage units on the property if they choose. Based on a family or individual house would be given a quota in which they can not go outside the quota. In the event that they go over that amount it will become a fee for which I think more would become more food waste conscious.

I think this monitoring system would work well in both Canada and the United States because it would hold individual households accountable for their excessive amounts of food waste. It would allow governments to have a better understanding of what demographic territories, age groups, ethnicity, and household incomes have a higher contribution to food waste and allow municipalities to hone on specific areas to create more awareness about the problem.

To conclude, food waste is a very serious issue that causes many long-lasting effects on our environment. Globally half the food produced is wasted and gets dumped at landfills where food will compost and great greenhouse gases. Both Canada and the United States are actively trying to reduce the excessive amounts of food waste to be able to reach their goal by 2025 and 2030. The province of Nova Scotia is a leader when it comes to reducing food waste due to the goal they implemented in 1995 and was able to reach it by 2000 by establishing strict and advanced recycling and diverting systems.

References

Food Waste FAQs. (n.d.). Retrieved from <https://www.usda.gov/foodwaste/faqs>

Reducing Wasted Food At Home. (2021, March 31). Retrieved from <https://www.epa.gov/recycle/reducing-wasted-food-home>

United States 2030 Food Loss and Waste Reduction Goal. (2021, January 13). Retrieved from <https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal>

Canada, E. A. (2020, December 14). Government of Canada. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/food-loss-waste.html>

Canada moves to reduce food waste with new initiative. (2021, May 07). Retrieved from <https://www.thepigsite.com/news/2020/11/canada-moves-to-reduce-food-waste-with-new-initiative>

Education. (n.d.). Retrieved from <https://divertns.ca/education>

Food Waste in America: Facts and Statistics (2021 Update). (2021, March 01). Retrieved from [https://www.rubicon.com/blog/food-waste-facts/#:~:text=Each day in the United,Department of Agriculture \(USDA\).](https://www.rubicon.com/blog/food-waste-facts/#:~:text=Each day in the United,Department of Agriculture (USDA).)

Learn About the Food Recovery Challenge. (2021, April 19). Retrieved from <https://www.epa.gov/sustainable-management-food/learn-about-food-recovery-challenge>

Government of Canada / Gouvernement du Canada. (2020, July 31). Retrieved from

<https://www.agr.gc.ca/eng/agricultural-programs-and-services/surplus-food-rescue-program/?id=1591298974329>

Canada, A. A. (2020, August 13). Surplus Food Rescue Program. Retrieved from

<https://www.canada.ca/en/agriculture-agri-food/news/2020/08/surplus-food-rescue-program.html>