

2021 Champion of the Environment Scholarship Essay

The State of Food Waste

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Executive Summary

In light of alarming food waste statistics and studies across the world, many governments and companies have established comprehensive waste reduction targets that will have widespread implications on environmental, economic and social issues heeding sustainable development. This essay explores the underlying components of two prominent targets, whether they have necessary support, and where they are heading. The first analyzed was Canada's commitment in the *United Nations 2030 Agenda for Sustainable Development*. The second was the European Union *Farm to Fork* strategy. It also goes over the strategic value of soft versus hard policies, giving examples of different stances between private companies, non-for-profit organizations, and government entities within Canada and abroad including Walmart and Nova Scotia Environment. To anyone with a remote interest in eliminating food waste, an understanding of the relationships at play is immensely important, and create a compelling argument for advocating to reduce food waste in our everyday lives that is rooted in science. Moreover, it discusses the criticalness of governments to commit to policies, and at times adapt when things are not functioning as intended. The essay wraps by setting an outlook for reduction policies at a local level, namely surrounding the new Premier Iain Rankin, and some items that might be implemented in a future Nova Scotia to reduce food waste and improve our environment.

Essay

In March 2020, a watershed study was released, estimating global food waste to be twice as high as previous estimates (Verma et al., 2020). In layman's terms, this amounted to a third of all food available for human consumption being wasted. Wealthier countries, including Canada, are projected to have significantly more of an impact. This is not merely an ethical dilemma - the UN estimates that food waste costs around \$1 trillion to the global economy each year (Erdman, 2020). Thus, efforts to reduce food waste should not go unnoticed. Here in Canada, there has been a drive by the federal government to commit to a *United Nations Agenda for Sustainable Development*, outlining a target of 2030 to halve per-capita food waste across the world at both the retail and consumer level. In the European Union, a *Farm to Fork* strategy has emerged, aiming to similarly “prevent food loss and waste along the whole food value chain” (European Commission, 2020). The first of these to be discussed is Canada.

In 2017, Prime Minister Justin Trudeau said in an address to the United Nations that “the SDGs [Sustainable Development Goals] are as meaningful in Canada as they are everywhere else in the world,” (United Nations, 2018). Supporters and critics alike have certainly noted a reflection of this in his policy. The next year, Canada’s federal budget allocated new funds to an SDG unit, impacting federal, provincial and municipal agencies, while also tracking Canada’s progress. Canada is a developed country, and it has also been able to respond in ways outside of the commitment, largely thanks to its economic stability. Discount food retailers have increasingly received subsidies from the government, and more recently, social media campaigns from conscious Canadians have raised questions on the practice of leaving food on the shelf when unnecessary. The main priority of meeting sustainable development goals was an emphasis

on gender equality, but reducing food waste was surely not forgotten. One allocation of funds went towards establishing a *Canadian Food Policy Advisory Council* with explicit near-term targets to reduce food waste, and both Trudeau and his Liberal government have kept to par with passionate rhetoric regarding the importance of it (Government of Canada, 2021). The environmental impacts of food waste have been thoroughly documented in Canada, and one estimate in terms of climate change has laid it responsible for as much as 56.6 million tonnes of carbon emissions (Janus, 2019). As opposed to past administrations, there is no question the government has accepted these figures and moved through domestic and international policy to, at least somewhat, reduce it.

On the other hand, the European Union has spearheaded an innovative, multi-stakeholder plan to reduce waste, drawing new measures including the monitoring of food waste at more than the traditional single level of the consumer. In the EU, over 50% of food waste occurs in households, which is significant considering it holds 27 member countries. This has highlighted a major potential to create awareness, of which the union has seized. Public campaigns from the European Commission including “Stop food waste” have materialized, and economically, food waste has cost taxpayers roughly €143 billion every year (European Commission, 2016). While Canada’s contributions in comparison are still important, establishing a collective front on reducing food waste such as that of the *Farm to Fork* strategy will confirm its reduction, and subsequently its environmental impacts. However, with increasing and disruptive reports, it is paramount this is done in collaboration with retailers of the global economy who greatly shape public actions and opinion. One example is retail company Walmart, who notes that the world “generates an average of 3.5 million tons of solid waste per day,” and plans to “Continue

working to divert waste in all markets, moving as fast as infrastructure and best practices allow,” even with little government incentive (Wal-Mart Stores, Inc., 2017).

Yet existing soft and hard commitments on reaching oftentimes ambitious targets are, as most researchers agree, not enough amid impending environmental disasters. Victoria Gill sheds light on this pertaining to the COVID-19 pandemic, predicting “that number [of food waste] is expected to rise sharply in the wake [of the pandemic]” (Gill, 2021). All research done within the essay pointed to food waste as being on an upward trajectory, and it is therefore critical governments respect and advance associated policies. These could include more spending on public campaigns, or even tax incentives for companies that adhere to environmentally friendly policies. On a local level, the non-for-profit Divert NS has held Food Waste Summits sponsored by a government body, Nova Scotia Environment and the aforementioned business, Walmart Canada (*Divert NS Takes a Bite out of Food Waste*, 2017). With effort, this event and others have demonstrated a willingness for collaboration across the institutional spectrum.

One way the Nova Scotian government could address food waste and meet its targets is regulating a “first in, first out” approach inside restaurants and grocery stores. This consists of placing new food in the back, rather than front of shelves, to incentivize reducing waste of unwanted items that would need to be thrown out. For example, if a store sets out canned goods, they must place the new cans in the back and old cans in the front, even if it is not as attractive. This could be regulated by a team of inspectors. Another way to address food waste could be eliminating food trays. A study by Kiho Kim and Stevia Morawski in 2012 found that, when trays were unavailable in a dining hall, waste was reduced by 32% (Kim & Morawski, 2012, p. 483). Looking to the future, Premier Iain Rankin has proposed a sustainable economic recovery plan for combating the pandemic that could simultaneously help solve food waste issues.

Broadly, he stated he would “activate... a plan that is low-carbon and is climate resilient.”

(Liberal Leadership Candidate Iain Rankin Unveils Economic Recovery Plan, 2020). Rankin was initiated in February of 2021, and environmentalists could view his start as laying a framework in which these policies can be implemented. Part of his plan already calls to reduce the province's reliance on imported foods.

While it is clear that serious efforts to reduce food waste are unfolding both in Canada and across the world, new research and a pandemic have renewed concerns of its environmental impact. Some have scrutinized the two targets as insufficient, and pointed to a drastic underreporting of food waste among other statistics. Yet, they are undoubtedly a starting place. Food waste continues to remain at the heart of discussions involving environmental justice, and governments, companies and individuals must remain aware of their decisions' impacts on it, for if not, we may face severe consequences.

References

DivertNS. (2017, April 11). *Divert NS Takes a Bite out of Food Waste*.

<<https://divertns.ca/news/2017/divert-ns-takes-a-bite-out-of-food-waste>>

Erdman, S. C. L. (2020, March 18). *Global food waste twice as high as previously estimated, study says*. CNN.

<<https://edition.cnn.com/2020/02/20/health/global-food-waste-higher/index.html>>

European Commission. (2016, March). *Estimates of European food waste levels*. FUSIONS.

<<http://www.eu-fusions.org/phocadownload/Publications/Estimates%20of%20European%20food%20waste%20levels.pdf>>

European Commission. (2020, June). *Frequently asked questions: Reducing food waste in the EU* (No. 1).

<https://ec.europa.eu/food/sites/food/files/safety/docs/fw_lib_reduce-food-waste-eu_faqs.pdf>

Gill, V. (2021, March 4). *Food waste: Amount thrown away totals 900 million tonnes*. BBC

News. <<https://www.bbc.com/news/science-environment-56271385>>

Government of Canada. (2021, February 22). *The Canadian Food Policy Advisory Council - Agriculture and Agri-Food Canada (AAFC)*. Agriculture and Agri-Food Canada.

<<https://www.agr.gc.ca/eng/about-our-department/key-departmental-initiatives/food-policy/the-canadian-food-policy-advisory-council/?id=1597863853544>>

Janus, A. (2019, January 17). *More than half of all food produced in Canada is lost or wasted, report says*. CBC News.

<https://www.cbc.ca/news/canada/toronto/food-waste-report-second-harvest-1.4981728#:~:text=And%20the%20waste%20comes%20with,dioxide%2C%22%20the%20report%20says>

Kim, K., & Morawski, S. (2012). Quantifying the Impact of Going Trayless in a University Dining Hall. *Journal of Hunger & Environmental Nutrition*, 7(4), 482–486.

<https://doi.org/10.1080/19320248.2012.732918>

The Chronicle Herald. (2020, November 5). *Liberal leadership candidate Iain Rankin unveils economic recovery plan*.

<https://www.thechronicleherald.ca/news/provincial/liberal-leadership-candidate-iain-rankin-unveils-economic-recovery-plan-517031/>

United Nations. (2018). *Canada Sustainable Development Knowledge Platform*. Sustainable Development Goals Knowledge Platform.

<https://sustainabledevelopment.un.org/memberstates/canada#:~:text=Canada%20is%20committed%20to%20implementing,everywhere%20else%20in%20the%20world.%E2%80%9D>

Verma, M. B., de Vreede, L., Achterbosch, T., & Rutten, M. M. (2020). Consumers discard a lot more food than widely believed: Estimates of global food waste using an energy gap approach and affluence elasticity of food waste. *PLOS ONE*, 15(2), e0228369.

<https://doi.org/10.1371/journal.pone.0228369>

Wal-Mart Stores, Inc. (2017). *2017 Global Responsibility Report*. Walmart.

<https://cdn.corporate.walmart.com/46/db/79511ff245e894c0771bd34aed82/10.WMT_GRR_Sustainability-Eliminating-Waste.pdf>