## **Reducing Nova Scotia's Waste Production**

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May 1st, 2022

## Executive Summary

Nova Scotia is a leader in Canada in regards to low numbers of waste disposal. Even so, our waste disposal per person is currently 400kg. The government has set out to reduce this number to 300kg by 2030 (Bill 57, 2021). Nova Scotia has already implemented ways to reduce the waste ending up in landfills like their deposit refund system which encourages Nova Scotians to recycle their beverage containers (Government of Nova Scotia, 2019).

Other countries around the world are also working towards reducing their waste production and are using strategies that Nova Scotia can adapt for its own use. Switzerland uses a "polluter-pays" waste disposal system that has greatly reduced the amount of waste by offering incentives to recycle(The Swiss Confederation, 2019, p. 5). Kamikatsu, Japan is a zero-waste town with a vigorous waste-sorting system and waste reduction values that can be implemented in Nova Scotia (Stories, 2015).

The Government of Nova Scotia must work to create policies that reduce the waste that ends up in landfills. They can implement policies similar to those in Switzerland and restrict what can be mixed during manufacturing to ensure that all materials can be properly recycled (Ellen MacArthur Foundation, 2020).

Nova Scotian citizens, schools, businesses and communities must work together to reduce the amount of waste created by each individual. Education is a vital step in this process but action must also be taken. Individual actions like using reusable containers and purchasing items in bulk can be extremely beneficial. Schools can create incentives for students to recycle and produce less trash as well as ensure that the proper recycling and compost containers are accessible at all times. Businesses can create waste-reduction committees and communities can take inspiration from Kamikatsu's lifestyle. Addressing our overconsumption as a society is also an important step in reducing waste.

In Canada, Nova Scotia is second only to Prince Edward Island when it comes to minimizing the disposal of solid waste, but this does not mean there is no room for improvement (Government of Canada, 2022). The Government of Nova Scotia has set a target goal to reduce the current 400kg of waste per person to 300kg by 2030 (Bill 57, 2021). Currently, various methods are used to divert waste from landfills, including a deposit-refund system for beverage containers (Government of Nova Scotia, 2019). This program encourages residents to recycle their beverage containers in return for money, rather than throw them away. In 2015, the city of Halifax implemented a by-law that allows residents to have one black garbage bag per collection cycle (CTV Atlantic, 2015). Other garbage bags must be clear, which holds residents accountable for properly sorting their waste and removing recyclable and compostable products (CBC News, 2015). More recently, the government of Nova Scotia placed a ban on single-use plastic bags, known as the "Plastic Bags Reduction Act". This prohibits businesses from providing customers with plastic shopping bags in order to reduce their waste (Government of Nova Scotia, n.d.).

Many other countries and cities around the world have created and implemented other ways to reduce the waste going into their landfills. Kamikatsu, Japan has a waste separating system with 34 categories which residents must sort themselves. Although this level of commitment to waste separation may seem extreme, it ensures that every material can be reused and recycled correctly. Since the beginning of this program almost ten years ago, 80% of the town's waste has been recycled, reused or composted. Kamikatsu also reduces waste through the use of "kuru kuru" shops and in their factories. "Kuru kuru" means circular in Japanese and these shops let people take and leave used items for free. Local factories also use discarded products to create new items and pieces of clothing. The town now embraces a zero-waste lifestyle and has seen positive environmental impacts (Stories, 2015).

In 2007, Swiss citizens were depositing 720kg of waste per year. Currently, they are a world leader for recycling. One of the ways they managed to do this is through their

"polluter-pays" waste disposal system (The Swiss Confederation, 2019, p.1, 5). In Switzerland, residents must pay for official bags to dispose of their non-recyclable waste whereas recycling remains free. Over 90% of glass bottles and aluminum cans are now recycled because of this system (Garcia-Rubio, 2020).

The Nova Scotian government can implement a variety of policies to help support waste reduction goals. Taking inspiration from The Swiss Confederation's "polluter-pays principle", Nova Scotia could implement a similar policy to reduce the waste produced by households (2019, p.5). Making residents pay to dispose of their garbage while recycling remains free encourages them to think about how the products they buy will be disposed of and what it will cost both them and the environment. Other policies that can be implemented are those that promote a circular economy. A circular economy is a "systems solution framework" based on eliminating waste and pollution, circulating products and materials and restoring nature ("Finding a common language", n.d). Policies that ensure technical and biological materials are not mixed when creating a product allow all materials to be reused, remanufactured and recycled properly. Materials that are a mix of these products, like polycotton, cannot be recycled like a technological product and will not biodegrade like a biological product causing a limited life-cycle (Ellen MacArthur Foundation, 2020). Keeping these materials separate in the manufacturing process means that the finite resources used to create them can be utilised as much as possible.

Even without government regulations, there is plenty Nova Scotians can do to lower their own waste disposal. Divert NS' "Refuse, Reduce, Reuse" principle is an updated version of the more commonly known "Reduce, Reuse, Recycle" concept. The newer principle encourages individuals to not just recycle products to dispose of them, but to abstain from producing waste altogether ("Refuse, Reduce, Reuse", n.d.). Small actions can have a big impact when it comes to waste reduction. For example, instead of purchasing a cup of coffee each morning, bringing a refillable mug will keep 365 coffee cups out of landfills. An alternative is to make coffee at home

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while abstaining from the use of disposable coffee pods. Instead, opt for a bag of coffee beans or grounds. Purchasing these from a local business also reduces packaging used during transportation and helps support the local economy. Investing in reusable containers and packaging, like beeswax wrap, reduces everyday waste often created when packing lunches. Buying bulk and package-free items can help to reduce your disposal of solid waste. The Tare Shop, a Dartmouth-based package-free store, provides commonly used household items, food, beauty supplies and other products more sustainably. Shoppers can bring their own containers to fill with bulk products like shampoo, laundry detergent and various foods and spices. ("About Us", n.d) With these lifestyle edits, it is still important to diligently recycle and compost.

Education is an important part of reducing waste and school is the perfect place to facilitate this learning. There are many different ways schools' waste can be reduced. Teaching children and youth the proper way to sort their recycling and compost, and informing them of the environmental impact of landfills can be a vital asset. Even in high school, many students are unsure of what can be recycled. Teaching the importance of waste management, waste reduction and how to be more sustainable in everyday life can have a great impact. Having accessible resources for students to sort their waste into is also extremely important. Cole Harbour High is a very small school compared to others in the area. At this school, there is only one compost bin accessible to students and it is in the cafetorium. Many students eat lunch in classrooms, where there are no nearby compost bins. This leads to many students disposing of their organic waste in the garbage. The cafetorium is also closed during class periods, so any students who eat during their study blocks have nowhere to dispose of their food waste. Adding more compost bins, even by just one per level, would greatly reduce the amount of food waste not being composted at the school. Holding staff and students accountable for the amount of garbage produced by the school can also be used to reduce waste. Working with custodians to keep track of how much waste is thrown out every day and informing the staff and student body of these numbers will bring to light the impact each school has on the environment. Creating

different initiatives and competitions can help to engage students, make them more aware of the waste they discard and help them make a conscious choice to produce less waste.

It is crucial that communities in Nova Scotia work toward reducing waste in households, schools, businesses and the general community. There are many ways that community members, like local businesses, can work to reduce their waste. Businesses are now investing in renewable and efficient energy to power their buildings. Some may also have committees dedicated to this task and to making work practices more sustainable. It is important for businesses to direct the same focus toward waste reduction practices. A committee can be formed, like those dedicated to energy efficiency, to improve the company's practices. Informing employees about the impact of their actions and educating them on ways to improve will significantly reduce the amount of waste produced. Nova Scotian communities can take inspiration from Kamikatsu and implement some of their practices, like using old materials to create something new, into everyday life. Increasing the number and accessibility of rental stores and trading shops, like "kuru kuru" shops, is also a great way to limit new purchases (Stories, 2015). While these stores are a fantastic resource, it is important to make sure they are not places where people off-load unused purchases guilt-free. These stores are a better alternative than throwing products in the garbage but it is necessary to address our overconsumption as a society. Encouraging community members to reflect on their purchases and assure their products are something they need can help with this. Placing information about the harms of overconsumption and fast fashion in shopping centers will cause consumers to think about these things when making purchases.

Changes must be made in individuals' lives and in government regulations in order to reduce Nova Scotia's solid waste disposal to 300 kg/person by 2030, but it is an attainable goal. Nova Scotia has already implemented policies to reduce the amount of waste that ends up in landfills and has seen tremendous results. Policies implemented by other areas around the world have been very successful and their strategies can be used to reduce Nova Scotia's

waste. Individuals, schools, businesses and communities have a huge role to play, but as Nova Scotians, we must work together to obtain our goal.

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