# **WAT’s Sustainable? Episode 02 Transcript**

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WAT is up, Waterloo? Welcome to episode two of the WAT’s Sustainable? Podcast, the official podcast of the University of Waterloo's Sustainability Office. My name is Jenna and I am the host of this episode. Today we're going to be talking about: WAT is zero waste?

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First we will start by defining zero waste, the different elements involved in it, and zero waste’s connections to broader sustainability goals, both within the University and within our broader community, country and global sustainability efforts. We will then be discussing some of the challenges with waste as well as the zero waste movement. Then we will provide you with some ways to take action in your personal life to reduce waste, and then we will leave you with some resources to learn more about waste and the zero waste movement and to take action in your personal life.

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Of course, before we get into the actual content of the episode, it's time to share a global hurray. We're going to focus this global hurray on the theme of the week, which is waste. In March 2021, IKEA released a Zero waste cookbook. It's called the [Scrapsbook](https://www.ikea.com/ca/en/files/pdf/58/9f/589f2b5d/the-scrapsbook.pdf) - so like food scraps, food book...yeah, it's very punny, I know...and so this book was designed by 10 North American chefs and features ingredients in your kitchen that you would typically throw away so things like leftover peelings and cores from vegetables and fruit. Also some scraps like shells, bones, and other things like that. There are vegan and gluten free options available in this cookbook, and the best part about it is that it is a free resource available to the public on their website, we will share the link to the Scrapsbook in the show notes of this episode so you can check it out yourself.

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This demonstrates a great initiative by a large international company to promote waste reduction, and I think it's great, especially that the resource is free to the public because it just shows how important it is for everybody to be taking action to promote sustainability and reduce their waste, and how reducing your waste and being sustainable can be accessible to everybody.

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On to the content for today, which is: WAT is zero waste? Let's get started by defining zero waste in the zero waste movement. The definition does vary in the technical sense depending on who it is that is defining it, but the general elements described in all of these definitions are pretty similar. For instance, the Zero Waste International Council defines zero waste as: “the conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging, and materials, without burning and with no discharges to land, water or air that threaten the environment or human health.” This definition, which was published in 2018, is very much a supplier-oriented definition, so for producers of goods to really start considering the impacts of their production methods and their products on the environment. The solid waste Association of North America has also defined zero waste in a similar way, but it's more consumer-oriented, so more geared towards people like ourselves who are purchasing an using products. Their definition of zero waste is as follows: “efforts to reduce solid waste generation to nothing or as close to nothing as possible by minimising excess consumption and maximising the recovery of solid wastes through recycling and composting. There are many more definitions on the two I just described, but in general the main features of these definitions as well as the other ones that exist, include:

1. reducing waste from being generated in the first place;
2. making sure almost everything that can't be reduced gets recycled or composted or repurposed in some way; and
3. that zero waste requires action from both producers and consumers.

There are many reasons that reducing our waste is important. It shrinks our environmental footprint, provides greater resource and energy efficiency, and it's less problematic for those who are vulnerable to our waste. So in other words, where are waste often get sent now. You may now you.

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You may remember in the news in the past few years, there were concerns about China no longer wanting to import waste from other countries such as Canada because they were simply running out of space and they didn't feel that they should be responsible for other people's waste – so this is what I mean when I say those who are vulnerable waste like this and in many other countries they are often just left in communities where people are living in their growing up and so they have to deal with this waste every day. Maybe they're burning it may be there just leaving it and so that can have health impacts as well as it just lowers the aesthetic of their communities, and it can have environmental impacts on the waterways or on wildlife and plants, which they may use to hunt and eat or may have importance to their culture. These people are very vulnerable and reducing our waste is therefore not only protecting our environment at home, but it's protecting the environment of places where are waste typically gets sent, and it's protecting human health of those who are vulnerable.

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More broadly an looking at the economic benefits of reducing our waste, waste reduction promotes efficiency and supply chains and the creation of circular economies. We will explore the topic of circular economies a little bit later in this episode, but just remember, it's an important concept to keep reducing our waste. There are so many more reasons that waste reduction is important, but one thing that I would like to emphasize now and for you to consider throughout the rest of the episode is the difference between waste reduction and recycling. While both are very important, we should be putting so much more emphasis and focus on waste reduction and *then* recycling or composting whatever we cannot reduce. We shouldn't automatically be looking to recycling to solve our problems because unfortunately there are significant inefficiencies in the recycling system and that still requires resources and energy to recycle products. So overall we should be looking to reduce our waste before recycling.

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This is where the 5R model comes in that I mentioned at the beginning of the episode. The 5R model stands for the Five R’s of how we can reduce our waste to promote circular economies and protect the environment, human health and our economies. So those 5R’s– and these are in the hierarchy, they are in order of importance of what we should be looking at – include:

1. Refuse;
2. Reduce;
3. Reuse;
4. Repurpose; and
5. Recycle

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So we should first be refusing waste, so refusing products that would generate waste. Then trying to reduce our waste, so figuring out ways to reduce the amount of waste coming from our personal actions; reusing, so finding ways to reuse items that would typically be thrown away; repurposing them, so similar to reusing finding other ways to use materials that we would typically throw away; and then, as a last resort, recycling, so we can't re purpose we can't reuse, we can't reduce our waste, we will recycle and we will rely on those systems in place that are trying to reduce our overall waste footprint.

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On a grander scheme, there are actions being taken across the world to promote waste reduction, and so that's why it's important for us here in Canada and in our individual lies to be promoting waste reduction because we are contributing to broader global efforts. Most notably, if you look at the Sustainable Development Goal #12, this goal focuses on responsible production and consumption, which translates over to circular economy principles.

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So this SDG is focusing on ways that we can we be reducing our waste and making more responsible supply chains, and so it is impacting both the producers of products trying to make their supply chains more responsible, and consumers, the people who are demanding these certain products and who are generating waste after they consume the products. It's also been recognised both by the United Nations and other international organisations that we should be striving for circular economies.

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What sets a circular economy apart from a linear economy – which is the more traditional model of our global economy – is that in a circular economy, waste is minimised at every stage of the life cycle. Products are designed for durability and repairability, and all waste from one process in the supply chain serves as input or resources for another process. So let's say you have a factory where glass products are produced or products that have some sort of plastic components to them: these products go through their life cycle, they are used, their utility is maximized and then you are left over with these glass or plastic products that cannot be used in that function anymore. Instead of being thrown away, these glass and plastic materials are actually going into *another* supply chain, into another product that is being produced and they're being repurposed and regenerated so that defines this circular idea where these products serve their purpose and then the left over – the by-product of whatever their function is – is then going into another system to create further products, and it just keeps on going and keeps on going. So it's a very adaptable, very dynamic and fluid model of ways that we can reduce our waste, we can create efficiencies within our markets, we can reduce the number of raw materials and energy that we are using simply by repurposing the things that we are already using.

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As I mentioned, circular economies have been recognised at a global scale for being a target that we need to try and achieve at the local level and the global level. If we are looking close to home, the Government of Ontario has established some goals to achieve circular economies here in Ontario. There are many ways that the government is trying to achieve this, one of which has been the establishment of the Waste Free Ontario Act which came out in 2016 and defines ways that we can be achieving circular economies and reducing our waste.

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The goals set out by the Government of Ontario are then connected to broader goals from the Government of Canada, specifically looking at Canada's Strategy on Zero Plastic Waste, which was established in 2018 and outlines numerous steps for achieving circular economies and lower/zero waste living. This includes what you may be familiar with, the zero waste plastic ban. Now keep in mind that this is *not* all types of plastics, there are just certain plastics that are outlined within this Strategy.

That is just one of the many ways that the Government of Ontario as well as the Government of Canada and many other authorities are trying to promote these circular economies and waste reduction within their communities.

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Then even closer to home at the University of Waterloo, we have *Shift*:Zero, which is the University's Zero Waste Action Plan, which was created in 2017 and has established a goal of making the University of Waterloo a zero waste campus by 2035. In technical terms, a zero waste campus is defined as a campus that has a 90% diversion rate or more, so 90% of the waste that we generate is being diverted from landfill through recycling, composting, or more preferably reducing, reusing and repurposing our waste.

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Now it's time to talk about the challenges with waste and why we are creating so much waste in the first place. From a personal perspective, let's talk about a per person waste footprint – so this is the amount of waste that each person on average creates. According to the Global Footprint Network Canada's Ecological Footprint was 8.28 in 2014. This means that the average Canadian requires 8.28 global hectares per person to meet their resource demands and absorb their waste. Over eight hectares of land per person to host all of our waste – think of it like a landfill – and to provide us with the resources we need to live our daily lives – that could be raw materials like timber, water, land space...it could be all of these resources. On a global scale, humans are using resources faster than the Earth is capable of regenerating them. On average the resources used in one year take 1 1/2 years to regenerate.

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Now you don't need to be able to visualise these numbers in order to understand that we as individuals have a waste problem. We create *a lot* of waste in a short amount of time. Also connected to this problem are not just consumers but producers. The people supplying us with the products that we consume and we end up wasting. From the supplier and supply chain perspective, there are issues not only with using finite resources such as timber to create paper, precious materials like gold, and fossil fuels, but also the waste they generate within their supply chains. This includes carbon emissions, hazardous waste, pollution that comes from transportation, operations – if there's major spills such as oil spills, the waste and the damage left over from decommissioning facilities after businesses such as mines are no longer in use, their legacy impacts can last for decades if not centuries.

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If we are going to address the waste problem, we need to be addressing it with two goals in mind: we need to be reducing waste of our individual actions – so as a consumer, but we also need to be demanding change from supply chains because they are part of the problem as well. We should equally be balancing our efforts on both of these things.

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Since most of you listening to this episode are probably falling more into that consumer category instead of the supply chain category or our individual actions are more limited on the supply chain side, we are going to be focusing the rest of the episode on what individual consumers can do because our personal actions can make an impact, especially as more and more individuals demand lower waste options and refuse highly wasteful products or processes.

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I would also like to emphasize the fact that zero waste living is not an all or nothing process, and it can create unrealistic expectations if approached this way. We can often feel hopeless or discouraged if things don't go perfectly or if we do generate a small amount of waste. So, instead of focusing on living zero waste lifestyles we are going to be focusing on living *lower* waste lifestyles because that should be our goal. That's not to say you shouldn't *try* to achieve zero waste, but don't be too hard on yourself if you find zero waste especially challenging, just try at first to a live lower waste lifestyle. In general, the simplest thing you can do is use the 5R approach. Refuse disposable products an disposable packaging, reduce your overall waste from the actions you do in your daily life, reuse goods and products before throwing them away, repurpose left over materials packaging and things that you would typically throw away, and then recycle as a last resort.

But of course, make sure you're only recycling *recyclable* products. Do not be throwing everything into the recycling because that will create more problems, so make sure you are referring to a sorting guide prior to recycling or composting any waste materials that you have.

An important part, especially with trying to refuse and reduce your waste is understanding the systemic barriers that you might be facing – things that challenge the accessibility of these options to you. For instance, you might hear people say “oh just go to bulk or zero waste shopping stores,” but maybe you don't have those stores nearby, or maybe they're too expensive for you to afford.

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So when you understand those barriers, you can then start developing solutions or strategies that *are* within your control and *are* within your reach. Maybe you can't access these zero waste stores, but maybe you can start making your own products instead of buying packaged versions. Or maybe it does fit within your budget to start buying in bulk in larger quantities versus buying a smaller amount many times because that will reduce the overall packaging and transportation since everything is coming to you at once. Another great thing that you can do that may seem small and may seem insignificant to you, but actually has a big impact is ask businesses in your local community about their purchasing practises and their suppliers. See if they take any customer feedback and provide commentary on their waste behaviours and their product availability. This feedback might resonate with them and they might take action based on it.

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I actually have a great example that I would like to share with you about how I did this. One time, a few years ago I went up to a coffee shop that I loved and I asked them about their plastic straws because they had plastic straws. I tried to explain the environmental impacts of them to the manager who was working there at the time, and I suggested some options to them – some alternative things, like paper straws if they needed to have straws, or only having plastic straws for those who have accessibility needs, keeping them out of reach of anybody and then people can ask for those straws if they do need it, or providing reusable straws if there are people sitting in the store and they have an industrial level dishwasher so that they can safely sanitize and reuse metal straws or glass straws or other reusable alternatives. Or just removing straws altogether or encouraging customers to bring their own straws and giving them a discount for that. So I provided many of these options and because I approached the store in a very friendly an almost casual way and expressing my interest as a consumer versus attacking them, they were very receptive to it and they actually didn't even consider it themselves, and they thought that it was a great idea and they did end up producing their straws – I actually didn't even see straws being used in that store afterwards.

This demonstrates how a simple conversation can create change even within one store, and that can make a big difference. Especially, let's say if the store is going through 100 straws a day. Times that by one week that's 700 straws. Times that by a year, that's a lot more than my brain can do in math right now! But that's a lot of straws that are not ending up in our landfills through a simple, one-minute conversation (if that).

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Another thing to do that you should be aware of is question the products that you are purchasing. I say this specifically thinking about products that are greenwashing, which means they are promoting sustainability initiatives that aren't that credible or there isn't a whole lot of real sustainability going on behind the scenes. A great example of this is bioplastic materials, so things like “plastic biodegradable straws.” There are many businesses who are purchasing these thinking that they are compostable and that they are reducing waste since they aren't going to landfill. But most municipal waste sorting facilities and composting facilities cannot breakdown these products within the time that waste is sitting at their sites, and so they actually serve as contamination. Not only are they then thrown into landfill, but if they contaminate any other products or waste materials around them, that would also unfortunately go into the landfill, and it creates problems within their technology and their infrastructure.

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So instead of opting for these “sustainable” products that still encourage the use of products one time that are still disposable , opt for reusable, durable materials, create your own products or don't use the products at all. Ask yourself what their utility is in your actual life and if they are truly necessary for you to use. Simple questions, big impact!

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Now WAT? We are going to leave you with some tips for reducing your waist through your life, promoting the 5R model.

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1. Do a personal waste audit to learn what kind of waste you are generating and why. This could be as simple as monitoring how much waste you create every day or maybe once a week when you're throwing your garbage, recycling and compost to the curb or in your garbage chute in your residence building, and understanding where your waste is coming from. Then start asking yourself if there's ways that you can repurpose your waste or reduce your waste through the things that you have noticed. If you're feeling overwhelmed and not sure where to start when reducing your waist, try picking one or two areas of your life to focus on. Maybe this could mean reducing your waste in the kitchen by repurposing food scraps by using the Scrapsbook cookbook that I mentioned that is now provided by IKEA, or maybe instead of using plastic water bottles, investing in a reusable water bottle.
2. You could try out one of the actions in Earth Month Challenge which is going on right now and the week we're currently in when this episode airs, which is Week 2, is about waste reduction.
3. You can read the University's Zero Waste Action Plan to see what the University is doing to reduce their waste, see how you can help as a student – maybe by volunteering with certain clubs, engaging in conversations, providing feedback about our goals, or just learning what the University is doing to inspire you to take action in your own life.
4. In the fall term, you can participate in the Sustainability Office’s Waste Week, or really at any point in the year. You can take the challenge where you try to throw all of your non-recyclable, non-composable waste into one mason jar for one week to see how much waste you generate and again understand where that waste is being generated, and then figuring out how you can reduce that waste going forward.
5. Looking more broadly, you can see what resources are available in your community to support low waste living. For instance, if you live in the Kitchener Waterloo area, checkout Zero Waste Bulk or Full Circle Foods where you can bring your own containers. Or look for restaurants and grocery stores that allow you to bring your own containers or bags wherever you live. There is a great directory within the Kitchener Waterloo area that I will share in the show notes, but see if your own community has something similar.
6. Create a list of questions to ask yourself when shopping that encourage lower waste living. Questions about packaging, the sourcing, the life span, the durability of the products and more. While you may not be able to answer all of these questions with the information available to you as a customer – for instance, you might not know where a company is sourcing their ingredients, but you can do your best with the information that is available to you. So if you have the option to purchase a product that is made with, let's say, cardboard packaging versus plastic wrap, maybe you could opt for the cardboard one because you know you can either repurpose that packaging or you can recycle it versus one that is wrapped in plastic that would have to go in the landfill.

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And then finally, here are seven actions that you can take right now to promote waste reduction to live a more low waste lifestyle that really don't require you to spend that much money or spend that much time on:

1. Sort your waste properly.
2. Carry a reusable bag wherever you go.
3. Use reusable masks during COVID-19 if your community or workplace permits.
4. Meal prep more to minimise waste from takeout.
5. DIY products instead of buying new ones from stores.
6. Reuse or repurpose products before disposing of them.
7. Go thrifting to extend the life span of products. One person's trash really is another person's treasure!

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In summary, perfection in the zero waste movement really is a false presumption. Do your best with what is in your control and what you have access to, and remember we need action from both suppliers and consumers to reduce our waste and create circular economies. Be creative and have fun with how you approach reducing your waste. It doesn't have to be scary or challenging, but it can be fun and it can inspire you to create new things, to try new skills too, to be more appreciative of the products and the resources that you have available to you, and be for giving of yourself when there are things that are out of your control and you can't live a totally zero waste lifestyle. It's really hard in this day and age when we are in a culture of consumerism and so many products have so much waste associated with them, so be kind to yourself and don't give up just because you can't live zero waste one day. That's okay. Just keep trying to live as low waist as you can. We will share more resources that we encourage you to checkout for living a lower waste lifestyle in the show now.

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Before we sign off, I just wanted to reflect on our discussion and note that we have covered a lot of topics in this episode and skimmed over a few concepts and terms throughout it. One example is our most commonly asked question on campus, “how do I sort recycling?” There’s so much to cover on that topic and many others that we will be following up with in future episodes, so stay tuned for those!

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That is all for this episode. I hope you have enjoyed and learned something about zero waste and low waste living in what you can do and that you will start taking action now.

If you have been inspired to start taking action, I encourage you to share it on social media and tag @UWsustainable on Twitter or Instagram so that we can see what you're doing. If you have any questions about this episode, if you have feedback or if you have any other future ideas, guests or topics that you want us to cover, feel free to email us at sustainability@uwaterloo.ca.

That’s WAT's up, Waterloo, and we will see you in the next episode!