A Practical Guide to achieve Zero Waste for Individuals, Organisations and Cities

YUNUS

HUB

ENVIRONMENT

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1. Why Zero Waste

The zero waste movement emerged in response to the growing environmental problems caused by waste generation and disposal. According to a recent <u>UNEP study</u>, municipal solid waste is projected to increase from 2.1 billion tonnes in 2023 to 3.8 billion tonnes by 2050. In 2020, the global direct cost of waste management was estimated at USD 252 billion. When considering the hidden costs of pollution, health issues, and climate change resulting from poor waste disposal, the total cost rises to USD 361 billion. Without immediate action on waste management, this annual global cost could nearly double to USD 640.3 billion by 2050.

There is an urgent need to transition from the traditional linear economy, which follows a "take, make, dispose" model, to a circular economy that keeps resources in use for as long as possible, to address climate change. The UNEP report also predicts that adopting a circular economy model where waste generation is decoupled from economic growth through waste avoidance, sustainable business practices, and comprehensive waste management—could result in a net gain of USD 108.5 billion per year. The zero waste concept is a visionary approach aimed at eliminating waste entirely, and ensuring proper disposal for what is not possible to eliminate, to ensure no waste ends up in landfills, incinerators, or the ocean.

Zero waste, or waste minimisation, is a set of principles focused on waste prevention that encourages redesigning resource life cycles so that all products are repurposed and/or reused.



2. Zero Waste Principles

Refuse	Avoid acquiring items that are not needed. This includes saying no to single-use plastics and unnecessary packaging. By refusing these items, we reduce the demand for them and minimise waste from the outset.
Rethink	Reevaluate consumption habits and the overall approach to resource use. This involves considering the lifecycle of products, understanding the impact of waste on the environment, and making informed decisions that prioritise sustainability.
Redesign	Encourage manufacturers to design products and packaging that are circular, non-toxic, and easy to recycle or compost. This principle advocates for innovation in product design to minimise environmental impact.
Reduce	Minimise the amount of waste generated by choosing products with minimal packaging, buying in bulk, and selecting items that have a longer lifespan. This principle encourages thoughtful consumption and prioritising quality over quantity.
Reuse	Use reusable products instead of single use items and use products that are still in good condition repeatedly in their original function, instead of throwing them away. This also extends to things like second-hand markets and packaging that can be used several times.
Repair	Fixing broken or worn items instead of discarding them. This helps to extend the life of products and reduces the need to produce new ones, thereby conserving resources and energy.
Recycle	Properly sort and process materials so they can be recycled into new materials. This includes recycling paper, plastic, glass, and metals. Effective recycling helps to close the loop and ensures materials are kept in use rather than ending up in landfills.

Figure 1: Zero Waste Principles

Supporting regulation and implementing policies that promote zero waste practices and principles is also essential. This includes legislation that encourages recycling, bans single-use plastics, and provides incentives for waste reduction.

Zero waste strategies may be applied almost everywhere, including companies, communities, industrial sectors, schools, and homes! Below are some tips you can follow to reach zero waste as an individual, organisation or city.

3. Zero Waste Recommendations for Individuals

Analise Your Waste

Look in the bin! Start by taking an inventory of where your main sources of waste come from: packaging, food scraps, disposable products to see where you can make the most impact. What waste could be recycled or composted but is not? Set waste reduction goals and try to tackle the biggest waste challenge first. Ensure you have proper recycling set up at home to reduce the trash headed to landfill.

Reduce

Rather than trying to correct overconsumption through recycling and composting, we should start by focusing on consuming less. Reducing the amount of goods we consume, and waste, is a critical step in zero waste. When it comes to refusing, you can practice saying "no" to any unnecessary items, like plastic utensils with your take-away food or single use items. Leverage apps like <u>Too Good To Go</u>, which helps users rescue good food from going to waste, while offering great value for money at local stores, cafes and restaurants.

Reuse

When we reuse items or reduce our consumption, we minimise the need for raw materials to produce new products. Implementing reuse products in your daily life can contribute significantly to reduce waste. For example, buying biodegradable, affordable, long-lasting, and reusable sanitary products from companies like PadMad, a social business based in Kenya. Just one single reusable pad can help save between 5-15 thousand pads and tampons from ending up in the landfill as plastic waste! Going out for a coffee? Many coffee shops now offer discounts to customers who bring their own cups, saving cash and waste. Give your clothes a second life or buy second-hand from others from shops like <u>ThredUp</u>, an online thrift store where you can buy and sell second-hand clothing.

Repair and Refurbish



Taking items to repair, instead of throwing away, can significantly reduce our carbon footprint. By extending the lifespan of items, the need for manufacturing new products is diminished, leading to lower energy consumption and reduced greenhouse gas emissions associated with production and transportation. Ready to upgrade your electronics? Instead of buying new, look for refurbished

smartphones, laptops, and tablets to help reduce waste and save on costs. Unleash the "fixer-upper" in you and learn how to repair on your own using websites like <u>iFixit</u>, an online community that offers over 100,000 free manuals for a wide range of appliances and electronics.

Repurpose

Repurposing involves finding new uses for items no longer needed for their original purpose. Be creative, some items that may appear to be trash could be given another use through repurposing or upcycling for example, turn empty tins into flowerpots, or use old clothes as cleaning cloths. Need inspiration? Check out <u>Upcycle That</u> or other online websites and blogs for inspiration.

Advocate and Participate

People can raise awareness and share knowledge about zero waste practices with family, friends, and community members. For example, sharing this resource, or other useful tips, in a community platform or forum. Joining campaigns like <u>Plastic Free July</u> can help raise awareness about your own habits to find areas where you could reduce plastic consumption. Research organisations like the <u>Ocean Conservancy</u> who organise local and global clean-up events to reduce plastic waste in waterways and communities and get involved.

Eat Seasonal, Plant-Based Food and Compost Food Scraps

Eating seasonally and composting can significantly reduce waste. Instead of going to the grocery store, check out local farmers markets that provide locally produced, in-season food, reducing the carbon footprint associated with transportation. Need inspiration to cook in season? Check out Apps like <u>Mealime</u> that help with meal planning to reduce food waste and make use of leftovers. Composting is nature's way of recycling. It is a powerful action we can take to reduce waste in landfills, build healthy soil and work towards climate action. Instead of throwing food scraps and other organic items in the bin, start a home compost system, or join efforts within your community.



Buy in Bulk and Avoid Unnecessary Packaging

Consider buying staples in bulk and storing them in reusable containers like mason jars or cloth bags. This can also help save on costs as pre-packaged goods tend to be more expensive. Companies like <u>Algramo</u> from Chile are driving change in consumer habits to reduce packaging waste. This of course is not limited to food, but also relevant for other commonly used products like cleaning supplies. Alternatively, you can find package-free options for things like shampoo more readily available in solid bar options, and even zero waste stores are popping up around the world.

4. Zero Waste Recommendations for Organisations

Educate Employees

Providing training on sustainable practices and the importance of zero waste initiatives is crucial for fostering a culture of sustainability within an organisation. Educated employees are more likely to adopt and advocate for sustainable practices, which significantly contributes to the organisation's overall waste reduction efforts. Training programs should cover topics such as waste segregation, recycling processes, and the environmental impact of waste. Additionally, offering workshops and seminars on sustainability can keep employees informed about the latest zero waste strategies and innovations. By making sustainability a core part of the company culture, employees become proactive participants in the organisation's waste reduction goals.

Introduce Waste Segregation

Implementing a waste segregation system with different bins for recyclable and non-recyclable waste is essential for effective recycling and waste management. Ensure that the provider for waste collection recycles segregated waste streams properly. Clear labelling and instructions on the bins can help employees understand what materials go where, reducing contamination and increasing recycling rates. Regularly reviewing and optimising the waste segregation system can also identify areas for improvement. Providing feedback and updates on the organisation's waste reduction progress can keep employees engaged and motivated to participate actively in the program.



Replace Bottled Water

Replacing bottled water in single-use plastic by installing filters on water taps is a practical step towards reducing plastic waste. If filters do not do the trick, providing large, glass water dispensers and using glasses in meeting rooms and reusable drinking bottles for employees can be an effective alternative. This initiative reduces the reliance on single-use plastics and encourages the use of sustainable alternatives. Organisations can also distribute branded reusable water bottles to employees, further promoting the shift away from disposable plastics. This not only minimises plastic waste but also sends a strong message about the company's commitment to environmental sustainability.

Ban Single-Use Items

Banning single-use items from the cafeteria and lunch areas is a significant step towards reducing waste. Encourage the use of reusable plates, cutlery, and containers. Providing reusable alternatives and eliminating single-use plastics like straws, cups, and utensils can drastically cut down on waste. Consider offering incentives or discounts for employees who bring their own reusable containers. This practice not only reduces the amount of waste generated but also promotes a culture of sustainability within the organisation.

Update Procurement Policies

Updating procurement policies to include sustainability as a criterion ensures that the products and services purchased by the organisation are environmentally friendly and support waste reduction goals. This could involve choosing suppliers who use minimal and recyclable packaging, sourcing products made from recycled materials, and prioritising eco-friendly office supplies. By integrating sustainability into procurement decisions, organisations can influence the entire supply chain to adopt greener practices. Regularly reviewing and updating these.

Conduct Waste Audits

Organisations should regularly analyse their waste streams to identify reduction opportunities. Conducting thorough waste audits helps in understanding the types and volumes of waste generated, allowing businesses to develop targeted strategies for waste reduction. For example, Google conducts annual waste audits to track and manage waste across its campuses.

Redesign Products for Longevity

Organisations should focus on developing products that are durable, repairable, and recyclable. By designing products that can be easily maintained and reused, businesses can significantly reduce their environmental impact and promote sustainability. For example, Framework, a tech company, produces easily repairable laptops with components that can be upgraded for long-term use. Framework's laptops are designed with modularity in mind, allowing users to replace or upgrade parts such as the battery, memory, and storage without needing to replace the entire device. This approach not only extends the product's lifespan but also reduces electronic waste and conserves resources, illustrating the benefits of designing for longevity.

Develop Waste Reduction Goals

Setting measurable targets for waste reduction and tracking progress over time is essential. Organisations can follow the example of Interface, a global flooring company that has set ambitious goals for waste reduction as part of its Mission Zero initiative. By setting clear goals and monitoring progress, companies can ensure continuous improvement in their waste management practices.

5. Zero Waste Recommendations for Cities

Develop Zero Waste Policies

Municipalities should implement comprehensive policies that promote waste reduction. This includes enacting bans on single-use plastics, similar to the <u>initiative taken by Kenya</u> effective to all its cities, which banned plastic bags in 2017 and expanded to other single-use plastics. Additionally, cities can provide incentives for businesses and individuals to participate in recycling programs, such as offering tax breaks or grants for sustainable practices.

Support Circular Economy Legislation

Cities should advocate for and support legislation that underpins circular economy initiatives. For example, the <u>European Union's Circular Economy Action Plan</u> includes measures to make sustainable products the norm and ensure that waste is minimised. Laws enforcing extended producer responsibility ensure manufacturers are accountable for the entire lifecycle of their products, encouraging sustainable production and waste reduction. Legislation should support upskilling and reskilling of workers and youth for circular economy job requirements to ensure a pipeline of talent with the relevant skills for a just transition.

Enhance Recycling Facilities

Investment in modern, efficient recycling facilities is crucial. Cities like Tokyo have <u>advanced</u> <u>recycling systems</u> capable of handling a wide range of materials, which has significantly increased their recycling rates. These facilities should be equipped to process various types of recyclables, improving the overall recycling rate and reducing the amount of waste sent to landfills.



Establish Composting Programs

Cities should create comprehensive composting services for organic waste from households and businesses. For example, <u>San Francisco's mandatory composting program</u> has diverted significant amounts of organic waste from landfills. This not only reduces landfill waste but also produces valuable compost for local agriculture and gardening, promoting a closed-loop system.

Launch Awareness Campaigns

Educating residents about zero waste practices is essential. <u>Brussels has engaged in a Zero</u> <u>Waste Strategy</u> to educate its citizens of how they can reduce waste and prevent plastic pollution. These campaigns can use social media, local events, and school programs to spread the message effectively.

Encourage Community Participation

Developing programs that actively involve citizens in waste reduction efforts can foster a sense of community and shared responsibility. Initiatives like repair cafés, where people can learn to fix their broken items, and swap events, where they can exchange goods, help reduce waste and promote sustainable consumption. For example, the city of Boulder, Colorado, <u>funding incentives</u> to encourage reuse and recycling.

Foster Public-Private Partnerships

Collaboration between municipal authorities, local businesses, and nonprofits is key to successful zero waste initiatives. Public-private partnerships, such as New York City's partnership with local businesses to reduce waste through the <u>"Zero Waste Challenge</u>", can drive innovation and provide the necessary resources and expertise to implement large-scale waste reduction programs.

Support Local Circular Economy Projects

Investing in local projects that promote circular economy principles is essential. For instance, Amsterdam supports <u>local repair cafés</u> and manufacturers of sustainable products through its circular economy initiative, which aims to make the city entirely circular by 2050. This can support green job creation, stimulate the economy, and reduce environmental impact by fostering a culture of sustainability and innovation in local communities.



6. Yunus Environment Hub's Role in Achieving Zero Waste

Yunus Environment Hub is dedicated to supporting social business entrepreneurs to build and scale circular solutions. Through our <u>CirculaRise</u> course and accelerator we help individuals in organisations and entrepreneurs maximise their environmental and social impact in a combined training and coaching framework. We offer capacity building in circular economy and just transition strategies to support the scale of holistic solutions and support to build ethical sourcing through trainings for the informal waste sector. Our consulting and advisory work is a platform to share expertise through research, strategy frameworks, and policy development to help private and public sector organisations identify approaches to act upon the environmental crisis.

Our co-founder, Nobel Peace Prize Laureate Professor Muhammad Yunus, was recently appointed by UN Secretary-General António Guterres as a member of the <u>Advisory Board of Eminent Persons</u> <u>on Zero Waste</u>, in accordance with the United Nations General Assembly resolution on Zero Waste (77/161) adopted on December 22, 2022. The Advisory Board, comprised of 12 eminent persons including Prof. Yunus, aims to support zero waste initiatives by showcasing and publicizing best practices and success stories, as well as raising awareness and promoting local and national zero waste initiatives.



Yunus Environment Hub has developed tangible recommendations for individuals, organisations and cities to help achieve zero waste targets through circular economy practices. By emphasizing closed-loop recycling and circular business models, we strive to create a more sustainable ecosystem that reduces the environmental impact of waste. We are committed to advancing the paradigm of zero waste by promoting extended producer responsibility and encouraging responsible waste disposal and management practices. Through our expertise, we aim to guide individuals, organisations, and cities toward a zero waste future.

For further information and inquiries, contact us at <u>info@yunuseh.com</u>. Together, we can drive positive change and achieve a sustainable future.

Imprint

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