Zero Waste in a Wellbeing Economy

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WELLBEING ECONOMY ALLIANCE

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Malin Leth holds a Master's degree in Leadership for Sustainability from Malmö University in Sweden. With a passion for participatory governance and regenerative processes of materials, Malin has co-created guides and tools such as the MethodKit for Sustainable Organisations, the Wellbeing Economy Policy Design Guide, and the Zero Waste Business Model Canvas. Malin currently leads a market transformation initiative for a circular plastics economy and is co-authoring a report on structural barriers and norms in the transformation towards a circular economy in Sweden.

Vision

In a Wellbeing Economy, all resources will be valued and there will be no waste. Our economic systems will mimic nature through a flow of regenerative processes whereby all materials are reused and reabsorbed to support life to come. In a Wellbeing Economy, we will honour and respect the gifts given by mother nature by producing high-quality goods that can be reused, repurposed, and repaired to support our collective flourishing in the present and for generations to come. We will foster a culture that recognises the true value of all plants, minerals, and animals that support us, and uses them sparingly.

Our creative energies and talents will be directed towards generating the greatest wellbeing from the least material consumption, by reusing all that we've already taken and giving back as much as we've been given.

A Wellbeing Economy is one of conservation and cultivation, rendering waste and pollution a thing of the past.

Current challenges

Alfred Marshall famously described Economics as the study of "individual and social action which is most closely connected with the attainment and with the use of material requisites of wellbeing."[1] Whilst we can certainly debate the contributions of this author to the contemporary obsession of economics with mathematics, turning the study of economics from a social science into an empirical science, Marshall's understanding of the economy as the way we secure the material resources needed for wellbeing is relevant here. Currently, our economy is obtaining and using materials in a way that is undermining our collective wellbeing, by destroying our ecosystem – our home – through wasteful production and consumption practices.

Globally, our consumption of materials in the form of economic goods and services accounts for around half of greenhouse gas emissions and over 90% of biodiversity loss.[2] Rather than reusing and repurposing the limited material resources on this planet, our economy continues to take, make, and waste them. Less than 10% of the more than 100 billion tonnes of materials that enter the economy every year gets the chance to re-enter it.[3]

One of the great ironies of our current economy is that we have generated a highly materialistic culture that does not seem able to actually value materials.

We need to shift the path from current practices and, in doing so, we need to relearn how to recognise the inherent value of resources, as well as how to design products and services for long-term use. Changing the way we produce and consume materials includes decarbonising the energy sector, rethinking the use of materials to being a service whereby we, after using it repeatedly, will help recirculate it back into the economy.[4] We need to recognise that the wellbeing of our people and planet are inextricably linked and that we must build an economic system that honours, values, and regenerates our natural world. However, shifting courses towards truly regenerative processes will require overcoming well-established economic approaches and practices, such as:

- **PLANNED OBSOLESCENCE:** the deliberate production of things that break easily or don't last long so that there is a continuous need to buy new things;
- **DECLINE OF THE REPAIRING ECONOMY:** as countries get "richer", they stop repairing goods and increasingly throw things away;
- **RISE OF SINGLE-USE PLASTICS, FOREVER CHEMICALS, AND OTHER DAMAGING SYNTHETIC PRODUCTS** that cause more harm than good, contaminating our earth and threatening the health of all life forms;
- **ADVERTISEMENT AND THE CREATION OF A HYPER-CONSUMPTION CULTURES**, in which people are encouraged to continuously buy and throw away low-value items;
- **PRICES OF RAW MATERIALS** that do not take into account their true cost, including the social and environmental impacts of extraction and production.

1. Marshall, A., Principles of Economics, 1890.
2. UN, "Facts and figures", 2022, [online] https://www.un.org/en/actnow/facts-and-figures.
3. Circle Economy, The Circularity Gap Report 2021 (Amsterdam: Circle Economy, 2022) [ebook], https://www.circularity-gap.world/2021.
4. Ellen MacArthur Foundation, "Fixing the economy to fix climate change", 2022, [online] https://climate.ellenmacarthurfoundation.org/.

The way out - How five Rs could help shift the current path

It is possible to build a regenerative and circular economy. In a Wellbeing Economy with zero waste, the notion of "consumer" changes from someone who consumes a product to someone who uses a resource. In such a Wellbeing Economic system, the norm would be to a) design in a manner that creates minimum by-products and pollution; b) make higher quality products with long-lasting guarantees; c) design products in a way that they can be turned into something else at the end of their first lifecycle, and d) fix, reuse, and return things.

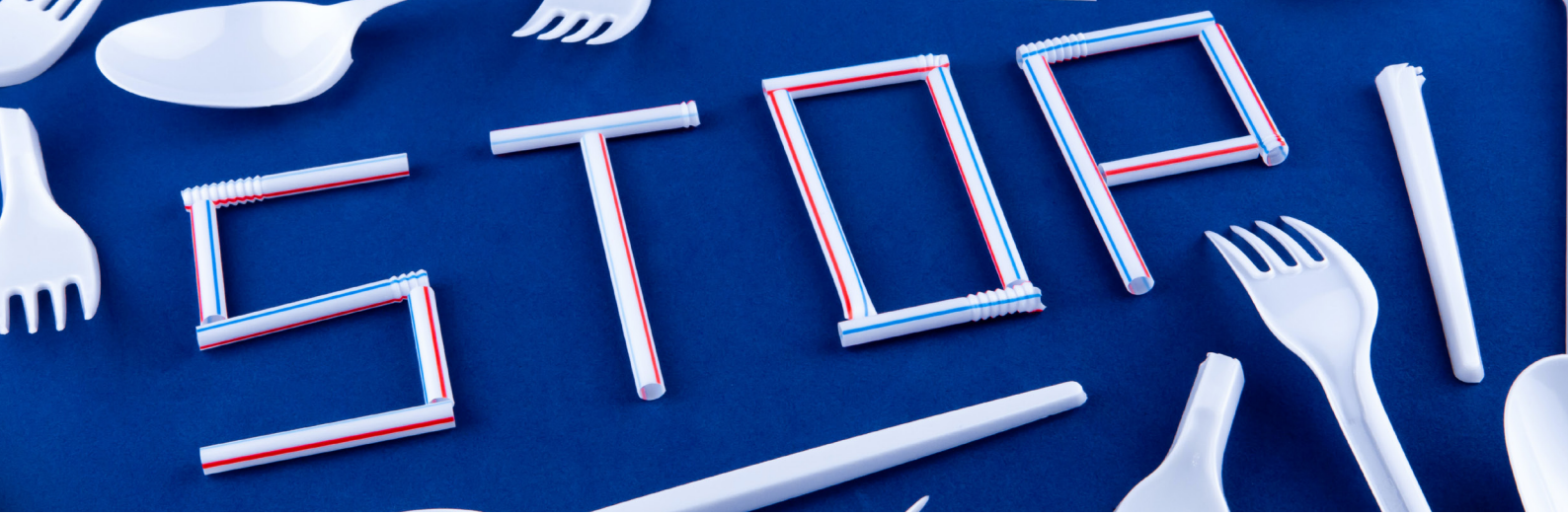
At this point, we cannot afford to just redesign production processes, but we must also focus our efforts on reversing the damage done by historic production practices that have destroyed, destabilised, and contaminated our ecosystems.

Transitioning towards zero waste in a Wellbeing Economy means both taking action to turn off the tap on the continuous flow of visible and invisible waste that is entering the environment every second, while at the same time starting to "mop the floor" and clean the world's oceans and lands from all the accumulated waste.

This simultaneous approach requires coordinated efforts from businesses, governments, and communities, and we can summarise possible solutions led by each of these actors into five main strategies, which we will call the five Rs:

- **REFUSE** business as usual, the use of non-renewable materials, and the production of unnecessary items;
- **REDUCE** linear production processes (e.g., take, make, waste) and move towards circular and regenerative processes;
- **REUSE** products over and over again (e.g., by refilling, repairing, repurposing, and returning);
- **RECYCLE** whatever is left; and
- **RESTORE** the planet from the harm that has been caused to enable all ecosystems and communities to thrive again.

Our current situation is far from our vision for zero waste in a Wellbeing Economy, but there are a lot of concrete actions taking place worldwide that show us change is both possible and underway. The following sections will illustrate existing projects and solutions taken by different actors to bring about zero waste in a Wellbeing Economy, according to each of the five Rs.



Refuse

The mindset trigger "refuse" starts with questioning the structures, norms and behaviours that currently shape all economic activity and our relationship to the natural world.

Diving deep into the question of why we produce and consume the way we currently do — and why we have such a wasteful relationship with the materials and products that sustain us — is important to get us beyond top-of-mind answers, bound by our existing knowledge and cultural standards, and into the actual root causes and challenges.

Refusal helps us to move beyond mitigating and tinkering short-term solutions to our environmental problems and gets us into a creative mindset that allows us to drive effective long-term solutions.

One important area where we are seeing progress in refusal relates to single-use plastics and zero waste initiatives that recognise that we cannot afford to just keep picking up litter and waste, but rather need to prevent its production in the first place.

Example 1 (Government):

Industries are producing twice as much plastic waste as they did two decades ago, most of which ends up being buried, burned, or entering our oceans and natural environments.[5] Single-use plastics account for the majority of plastic waste and, while it may take us five minutes to drink from a plastic water bottle, it will take hundreds of years for it to break down into smaller bits and fragments in a landfill or in our oceans.[6] Governments are beginning to refuse business as usual and are working to stop the production of single-use plastics and polluting microplastics in the first place. Regulatory frameworks such as specific plastic item bans are already adopted by 192 countries and a global plastic pollution treaty is underway.[7 8]

5. OECD, Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, (Paris: OECD Publishing, 2022) [ebook] https://doi.org/10.1787/de747aef-en.
6. UNEP, "Beat plastic pollution", 2022, [online] https://www.unep.org/interactives/beat-plastic-pollution/.
7. UNEP, Legal Limits on Single-Use Plastics and Microplastics: A Global Review of National Laws and Regulations, (Nairobi: UNEP, 2018) [ebook] https://www.unep.org/resources/publication/legal-limits-single-use-plastics-and-microplastics-global-review-national.
8. WWF, the Ellen MacArthur Foundation and BCG, The business case for a UN treaty on plastic pollution, (WWF, 2020) [ebook] https://www.plasticpollutiontreaty.org/.

Example 2 (Business):

Some businesses are beginning to adopt a "refusal" mindset when it comes to excess plastic packaging and waste. Packaging-free supermarkets and refill solutions are growing in numbers, for example.[9] This is not a new thing though — non-packaged products bought in bulk or products wrapped in organic material is still a tradition in many communities around the world. There is also a rise in zero waste stores and conventional supermarkets introducing packaging-free sections for dry ingredients, such as cereals or spices.[10] One such example is The Loop Store, which collaborates with major brands and manufacturers to enable refillable versions of their conventional single-use products. The Loop Store partners with leading retailers, such as large supermarket chains, to embed these offerings into their eCommerce and physical retail stores.[11]

Example 3 (Community):

Communities are working to reduce waste by refusing to accept it and by finding ways to reuse or recycle the materials they do have. The town of Kamikatsu, in Japan, is an example of one such community. Since 2003, they have been working to eliminate landfill waste from their economy and they are now at 80% zero waste to landfill. Sorting waste into 45 different categories at the same time as refusing materials that cannot be sorted helps them reduce waste production as well as the amount of waste going to landfill. Refusing anything that cannot be reused or recycled has been the core directive in their transformation, as well as collaboration – successfully including a population of 1,500 people in their journey. Their Zero Waste Centre was built with this principle in mind from the start. It is mainly constructed from recycled materials, making it easily disassembled for reuse or recycling. Also, its construction created jobs and a sense of community pride, because it serves as a central hub where people can meet and connect.[12]

9. Zero Waste Europe, Packaging free shops in Europe - an initial report, (Zero Waste Europe, 2020). [ebook] https://zerowasteeurope.eu/wp-content/uploads/2020/06/2020_06_30_zwe_pfs_executive_study.pdf.
10. Scharpenberg, Schmehl, Glimbovski and Geldermann, Analysing the packaging strategy of packaging-free supermarkets. Journal of Cleaner Production, 292 (2021): p.126048, [online] https://www.sciencedirect.com/science/article/pii/S0959652621002687.
11. Loopstore, "Loopstore", 2022, [online] https://loopstore.com/.
12. Kamikatsu zero waste centre, "Kamikatsu zero waste centre", 2022, [online] https://why-kamikatsu.jp/en/index.html.

Reduce

To move towards zero waste in a Wellbeing Economy, we must also reduce economic production processes that follow a linear way of taking, making, and wasting, in order to transition to circular production processes, where waste is reduced to a minimum and materials are used repeatedly. Around the world, we are seeing governments, businesses, and communities leading the way in reducing waste by building circular economies, in which they work towards giving back as much as they are taking from our natural environment.

Example 1 (Government):

Some governments have already started to shift their economies towards circular models. Sweden recently launched a strategy to transition towards a regenerative and circular economy[13], while the Netherlands has committed to making its economy completely waste-free by 2050.[14] For example, Amsterdam has introduced new standards for the circular use of materials. In the development of some new urban neighbourhoods, each new building must be accompanied by a 'materials' passport' that explains how it can be taken apart and reused at the end of its life cycle. By reimagining buildings as material banks from which valuable products can be harvested after they become obsolete, this initiative helps cities like Amsterdam reimagine themselves as resource centres rather than consumer markets.[15] [16]

13. Ministry of the Environment, Circular economy – Strategy for the transition in Sweden, (Stockholm: Ministry of the Environment, 2020) [ebook] https://www.government.se/4ad42c/contentassets/d5ab250cf59a47b38feb8239eca1f6ab/circular-economy--strategy-for-the-transition-in-sweden.
14. Government of the Netherlands, "Circular Dutch economy by 2050", 2022 [online] https://www.government.nl/topics/circular-economy.
15. City of Amsterdam, 2022, "Policy: Circular economy - City of Amsterdam" [online] https://www.amsterdam.nl/en/policy/sustainability/circular-economy/.
16. Circle Economy and the City of Amsterdam, The Amsterdam Circular 2020-2025 Strategy (Amsterdam: City of Amsterdam, 2020) [ebook] https://assets.amsterdam.nl/publish/pages/867635/amsterdam-circular-2020-2025_strategy.pdf.

Example 2 (Business):

The 3R Initiative is an example of how businesses can reach net-net circularity (giving back as much as we take), by providing guidelines for businesses on zero plastic waste leadership. Businesses can use plastic credits as a tool to offset what they have taken from the natural environment — but have not yet given back due to different reasons, some of which are avoidable and some of which are not. After all mitigation activities have been done (such as reducing waste and plastic use through redesign), any plastic waste that is left can still be addressed by using plastic credits. Plastic credits are therefore a helpful transitional and accountability tool for businesses, as we improve our waste management and systems, reduce our footprint in our value chains, and promote better understanding amongst stakeholders about how to manage and capture value from their waste streams.[17]

Example 3 (Community):

The Recycling Council of Alberta was inspired by the principles of a Sharing City Initiative and Living Economy Action Plan, both of which encourage collaborative solutions to reduce waste and material consumption. In response, the Recycling Council of Alberta initiated the Circular Communities Project with the aim of reducing waste and increasing circulation of products and materials.[18] In 2020, the Recycling Council hosted participatory sessions where communities from the City of Lethbridge, City of Calgary, Town of Banff, Strathcona County, and the City of Edmonton collaboratively developed their own roadmaps to reduce waste and increase circulation. Some of the innovative ideas that have emerged from this initiative include Banff's food rescue program and Calgary's leftovers program, both of which redistribute food that would otherwise be thrown away to people and organisations in need.

17. Verra, "Plastic waste reduction standard", 2022 [online] https://verra.org/project/plastic-program.
18. Recycling Council of Alberta, "Circular Communities Project", 2022 [online] https://recycle.ab.ca/circular-communities/.

Reuse

Transitioning to zero waste in a Wellbeing Economy will require us to learn how to better reuse the precious materials we have taken from the earth. We will need to redesign products and materials to significantly prolong their lifespan, increasing their durability, quality and repairability, and ensuring the producer can take products and materials back when they are no longer in use.

Example 1 (Government):

Governments around the world are working on the development and implementation of Extended Producer Responsibility (EPR) schemes. EPR policies give producers a significant responsibility – whether it is financial or physical – for the treatment and/or disposal of post-consumer products. Assigning such responsibility aims to provide incentives for producers to prevent waste at the source, to promote sustainable product design and to increase the reuse and recycling of products and materials.[19] It is nonetheless important that the design of EPR policies recognises and values the work of waste pickers and works with them in an inclusive way in both EPR design and implementation. When better organised and formally integrated into recycling systems, waste pickers can increase their contribution to environmental protection.[20] For example, WIEGO's Reducing Waste for Coastal Cities Project works to improve the capacity of waste picker organisations to be formally integrated into solid waste management systems in their cities, with a specific focus on Accra (Ghana), Buenos Aires (Argentina), Dakar (Senegal), and Mangalore (India).[21]

19. OECD, "Extended producer responsibility", n.d. [online] https://www.oecd.org/stories/ocean/extended-producer-responsibility-9dc4e62a
20. Johannes, Kojima, Iwasaki and Edita, Applying the extended producer responsibility towards plastic waste in Asian developing countries for reducing marine plastic debris. Waste Management & Research: The Journal for a Sustainable Circular Economy, 39(5), pp.690-702. 2021.
21. WIEGO, "Reducing waste in coastal cities through inclusive recycling", 2022 [online] https://www.wiego.org/rwcc.

Example 2 (Business):

Businesses are working to eliminate waste and substitute single-use items in order to reduce waste generation from fast-moving consumer goods like food, beverages, and household goods. The CupKita[22] and Muuse[23] models are examples of reusable cup services for coffee shops. When customers buy a drink at one of the participating stores, they can use a reusable cup that has been rented out by the company. Customers will scan the barcode on the reusable cup with their phones and pay a refundable deposit fee. After using the cup, they can return it to any participating store and get back their deposit so they can rent another reusable cup. The cups are cleaned before being put back into stores for use again. And retailers pay per cup rented, which is less expensive than buying single-use cups.

Example 3 (Community):

People all over the world are coming up with new ways to reuse things we have taken from nature. For example, the Afghan Dreamers project is an Afghan girls' robotics team that makes robots out of old car parts. They used these robots to build a ventilator device so they could help people who were sick with COVID-19.[24] Another example is Above Ground Level Artistry, which used discarded oil barrels to make hand-washing stations to help stop COVID-19 from spreading in Nigeria.[25]

22. CupKita, "CupKita - Circular Jakarta", 2022 [online] https://cupkita.id/.
23. Muuse, "Muuse", 2020 [online] https://muuse.io/.
24. Wikipedia, "Afghan girls robotics team, 2022 [online] https://en.wikipedia.org/wiki/Afghan_Girls_Robotics_Team
25. Reuters, "Nigerian artisan drums up business with upcycled washing stations", 2020 [online] https://reut.rs/2JsowHq.

Recycle

When a product or material reaches the end of its usability cycle, recycling taps in. This is the last step when a product or material has been used, reused, repaired, and returned. Materials like glass, paper, cardboard, and aluminium can be properly stowed and collected for material recycling, and what is not sorted for material recycling or is compostable usually goes into the general waste bin, to be sent either to a landfill or to an incinerator, where the waste can be burned to produce energy. Reducing what goes into the general waste bin and increasing what is sorted and collected for material recycling is essential, and there are many examples of how this is done.

Example 1 (Government):

It is common to use pay-as-you-throw programs, where households and businesses have discounted fees as they increase the proportion of their waste that is sorted for material recycling, though there are also some examples of 'no-sorting, no-collection' policies, meaning that, after some warning, if the waste is still not sorted, it will no longer be picked up. Pay-as-you-go schemes and no-sorting-no-collection policies may lead to an increase in illegal dumping and illegal trafficking of waste, but the degree of risk depends on the context.[26] When there is a low trust in the waste management system, people may be reluctant to pay for it and more likely to seek other ways out. One successful example of 'no-sorting, no-collection' policy was done by the city Alaminos in the Philippines. Within a decade, it went from pile burning to nearly 90% of their citizens sorting waste for composting and material recycling. The activities leading to this result were the creation of a developed waste management plan, through participatory processes, and awareness-raising and knowledge sharing about zero waste management amongst the population.[27]

26. Rucevska I., Nellemann C., Isarin N., Yang W., Liu N., Yu K., Sandnæs S., Olley K., McCann H., Devia L., Bisschop L., Soesilo D., Schoolmeester T., Henriksen, R., Nilsen, R., Waste Crime – Waste Risks: Gaps in Meeting the Global Waste Challenge. A UNEP Rapid Response Assessment. (Nairobi: UNEP and Arendal, 2015) [ebook] https://www.unep.org/resources/report/waste-crime-waste-risks-gaps-meeting-global-waste-challenge-rapid-response.
27. GAIA, "Zero waste from dream to reality in the Philippines", 2020 [online] https://www.no-burn.org/zero-waste-from-dream-to-reality-in-the-philippines/#:~:text=The%20city%20of%20Alaminos%20is,share%20responsibility%20for%20managing%20waste.

Example 2 (Business):

Many companies and other organisations have found ways to recycle discarded products and materials. One example is Clean the World which recycles soap and other products that are discarded by hotel guests at more than 8,000 different hotels and resorts around the world. The discarded material is recycled into new soap bars and hygiene products that are then distributed to children and families in vulnerable communities. Since their start in 2009, more than 63 million soap bars have been distributed.[28]

Example 3 (Community):

Millions of people around the world make a living by collecting and sorting waste materials. Waste pickers are at the forefront of recycling, providing a much-needed solid waste collection service to communities. They collect recyclable materials and create jobs for themselves by selling them to recycling companies. Despite their efforts, they often face low social status, deplorable living and working conditions, and get little support from local governments. Replacing repressive policies with inclusive policies focused on legal recognition, fair remuneration for services, social recognition, and the strengthening of waste picker organisations is crucial.[29] Some countries, such as Brazil, Colombia, and India, have taken first steps in this direction, passing on legislation that gives waste pickers the right to sell to or bid on contracts with the municipality.[30]

28. Clean the World, "Recycling soap. Saving lives", 2018 [online] https://cleantheworld.org
29. Johannes, Kojima, Iwasaki and Edita, Applying the extended producer responsibility towards plastic waste in Asian developing countries for reducing marine plastic debris. Waste Management & Research: The Journal for a Sustainable Circular Economy, 39(5), pp.690-702. 2021.
30. WIEGO, "Waste pickers", 2022 [online] https://www.wiego.org/waste-pickers.

Restore

Restoring is about not only preventing waste pollution but giving back to enable ecosystems to thrive again. It is possible for waste management to go beyond mitigation of harm and to actively invest in nature restoration. Restoration is necessary both on our lands and in our seas, as we seek to revive vegetation above and below the surface.

Example 1 (Government):

The municipality of Curridabat in Costa Rica has granted citizenship to pollinators – including bees, hummingbirds, bats and butterflies – along with native plants and trees. This has enabled the city to better plan for the benefit of all their citizens – human and non-human. Curridabat's new perspective on citizenship has formed the basis for more ecological and proactive approaches to water management, investment in green infrastructure and bio-corridors, classroom initiatives that work to educate citizens on eco-centric behaviours, and participatory neighbourhood design processes that ensure more harmonious cohabitation with nature. The ultimate aim of the city is to align urban infrastructure and landscape architecture with biodiversity, rather than the other way around.[31]

31. Curridabat, Sweet City. A city modeliling approach based pollination (Curridabat, n.d.) [ebook] https://static1.squarespace.com/static/5bbd32d6e66669016a6af7e2/t/5c757759e2c4835d3cbc174f/1551202139913/Curridabat_Sweet_City_Magazine.pdf.

Example 2 (Business):

Every year, millions of tonnes of plastic enter the oceans. Working backwards from the sea to the origins of improper waste disposal into our water systems, the Ocean Clean Up develops and scales technologies to rid oceans and rivers of plastic waste. Founded by inventor Boyan Slat at the age of 18, the Ocean Clean Up aims to remove 90% of floating ocean plastic pollution.[32] Another example is Sungai Watch, who aim to clean every river in Indonesia by 2025 by installing trash barriers, analysing, and fixing gaps in waste management systems, organising clean-ups and hosting mass education initiatives to prevent trash from entering the environment.[33]

Example 3 (Community):

Due to plastic pollution and other mismanaged waste, the mangrove forests are slowly suffocating in plastic waste. Being a natural barrier to coastal erosion, a shoreline stabiliser, a primary source of livelihood for coastal communities, a sequester of carbon, and so much more, these ecosystems are essential to restore. Restoration, however, is impossible without properly managing waste. The project One Child, One Tree started out as a school-based fruit-tree planting program to raise awareness about the environment among children in Hagonoy, the Philippines. Now, the project has expanded into coastal clean-ups, waste management advocacy, and mangrove planting in the region – all formulated with high participation from the local community.[34]

32. The Ocean Cleanup, "The ocean cleanup", 2022 [online] https://theoceancleanup.com/.
32. Sungai Watch, "Sungai watch", 2022 [online] https://sungai.watch/.
33. One Earth, "Sowing seeds of inspiration in the Philippines with mangrove reforestation", 2021 [online] https://www.oneearth.org/sowing-seeds-of-inspiration-in-the-philippines-with-mangrove-reforestation.

Conclusion

Our current economic system greatly exceeds our planetary boundaries. Today, as a global society, we need about 1.75 planets to provide the resources we're consuming and to absorb our waste. By 2030, this is estimated to be 2 planets.[35] Yet, we only have one…

Reducing our waste requires governments, businesses, and communities to work together to jointly rethink and redesign the ways in which our societies operate. The five R's that were set out in this paper (refuse, reduce, reuse, recycle, restore) can guide us along this journey. The five R's emphasise the importance of addressing the root causes of our waste problem. Without addressing these root causes, by not refusing extractive practices and reducing the amount of waste we create as our first priority, we are left mopping the floor without ever turning off the tap.

While the vision of zero waste in a Wellbeing Economy can seem overwhelmingly bold, the examples described above show how communities, businesses, and governments around the world are taking important steps on this journey. As exceptional as these initiatives are today, they shine a hopeful light on what could become common practice in our societies going forward.

35. The world counts, "Watch out world's social and environmental challenges", 2022 [online] https://www.theworldcounts.com/.

Additional resources

Books

- Cradle to Cradle - Remaking the way we make things, https://books.google.se/books/about/Cradle_to_Cradle.html?id=KFX5RprPGQ0C&redir_esc=y
- Doughnut Economics - seven ways to think Like a 21st-Century Economist, https://books.google.se/books/about/Doughnut_Economics.html?id=9euWCwAAQBAJ&redir_esc=y
- The circular economy - a user's guide, https://books.google.se/books/about/The_Circular_Economy.html?id=CHZmwQEACAAJ&redir_esc=y
- Waste to wealth, https://books.google.se/books/about/Waste_to_Wealth.html?id=WGKkCgAAQBAJ&redir_esc=y
- Biomimicry, innovation inspired by nature, https://books.google.se/books?id=mDHKVQyJ94gC&printsec=frontcover&dq=biomimicry&hl=en&sa=X&ved=2ahUKEwiNu56S9Iv2AhXYR_EDHbQkAhMQ6AF6BAgFEAI#v=onepage&q=biomimicry&f=false
- Designing for the circular economy, https://books.google.se/books/about/Designing_for_the_Circular_Economy.html?id=ZEpnDwAAQBAJ&redir_esc=y
- Business models in the circular economy, https://link.springer.com/book/10.1007/978-3-319-75127-6
- A circular economy handbook for businesses and supply chains, https://books.google.se/books/about/A_Circular_Economy_Handbook_for_Business.html?id=DU2iDQAAQBAJ&redir_esc=y
- Rethinking Sustainability Towards a Regenerative Economy, https://link.springer.com/book/10.1007/978-3-030-71819-0
- No time to waste, the rise of a regenerative economy, https://www.amazon.com/No-Time-Waste-Regenerative-Economy-ebook/dp/B01N4X5A91
- The regenerative business, https://www.adlibris.com/se/bok/the-regenerative-business-9781473669109?gclid=CjwKCAiA6seQBhAfEiwAvPqu1x19Vz959ChCJ6cdzwOVX_pd6d-48RwA_8h1kw7C4sZlLibxcOxBYxoCyVcQAvD_BwE
- Regenerative leadership: The DNA of life-affirming 21st century organizations, https://www.amazon.se/Regenerative-Leadership-life-affirming-century-organizations/dp/1783241195/ref=asc_df_1783241195/?tag=shpngadsglede-21&linkCode=df0&hvadid=476556295340&hvpos=&hvnetw=g&hvrand=14228049547462032464&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9062395&hvtargid=pla-784306038385&psc=1

Papers

- What a waste: An updated look into the future of solid waste management (2018), The World Bank
- https://www.worldbank.org/en/news/immersive-story/2018/09/20/what-a-waste-an-updated-look-into-the-future-of-solid-waste-management
- Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0 : A Global Snapshot of Solid Waste Management to 2050. Urban Development;. Washington, DC: World Bank. © World Bank https://openknowledge.worldbank.org/handle/10986/30317

- No time to waste. Tackling the plastic pollution crisis before it's too late. A report by Tearfund, Fauna & Flora International, WasteAid and the Institute of Development Studies (2019) https://assets.fauna-flora.org/wp-content/uploads/2019/05/2019_No-time-to-waste-report.pdf
- PEW trust breaking the plastic wave
- Talking trash
- WEF playbook https://weforum.ent.box.com/s/fx48az4ij1c8gr31g8jm5bppns79fpom
- African circular economy alliance, https://www3.weforum.org/docs/WEF_Five_Big_Bets_for_the_Circular_Economy_in_Africa_2021.pdf
- EU circular economy action plan, https://ec.europa.eu/environment/strategy/circular-economy-action-plan_en
- Zero waste business model canvas, https://bit.ly/zerowastebusinessmodelcanvas
- Circular business model innovation toolkit, https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5c88a8834&appId=PPGMS
- Circular design guide (including circular business model canvas), https://www.circulardesignguide.com/post/circular-business-model-canvas

Websites

- World Economic Forum - The Fourth Industrial Revolution, https://www.weforum.org/focus/fourth-industrial-revolution
- Ask Nature, https://asknature.org/

Organisations

- The World Bank, https://www.worldbank.org/en/home
- Sharing Cities Alliance: https://www.sharingcitiesalliance.com/
- Ellen MacArthur Foundation, https://ellenmacarthurfoundation.org/
- Biomimicry Institute, https://biomimicry.org/
- Capital Institute, https://capitalinstitute.org/
- Global Alliance for Incinerator Alternatives, https://www.no-burn.org/
- Zero Waste World, https://zerowasteworld.org/ https://www.circle-economy.com/
- Doughnut Economics Action Lab, https://doughnuteconomics.org/

Podcasts

- Getting in the loop, Katherine Whalen, https://open.spotify.com/show/5lKLRRVssyVnjJWj0TSJGn
- The Circular Economy Show, Ellen MacArthur Foundation, https://the-circular-economy-podcast.simplecast.com/

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Zero Waste in a Wellbeing Economy

WELLBEING
ECONOMY
ALLIANCE