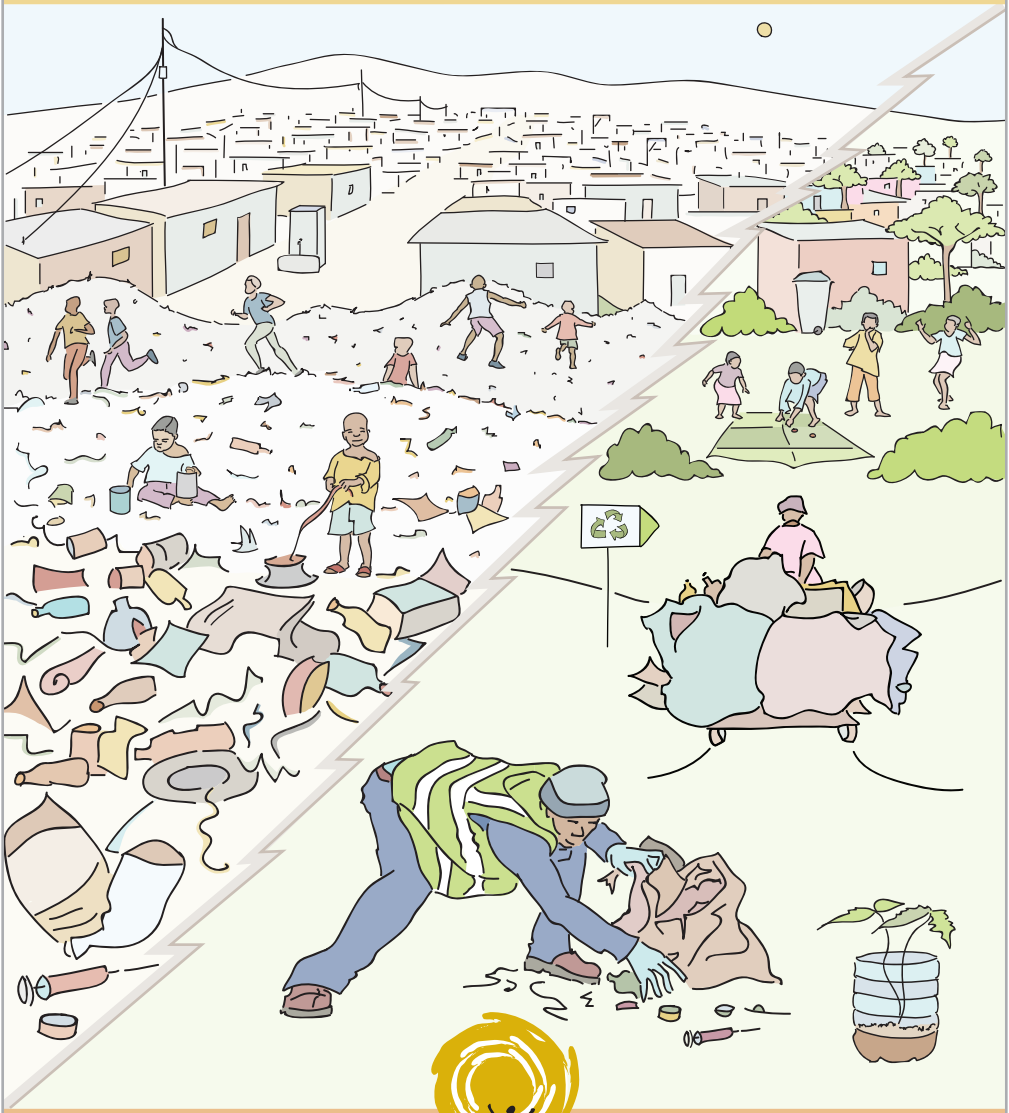
Towards zero waste



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This booklet is dedicated to Simon Mbata, founder of the South African Waste Pickers Association. Mbata was not only a waste picker but a pioneer who worked tirelessly to make sure that waste pickers are organised, recognised, and their rights are upheld. He was consulted by waste picker organisations around the world and was a strong advocate for zero waste and separation at source. In spite of his untimely death, his legacy will continue both in South Africa and beyond.

This booklet is part of the resources that groundWork is producing for its Environmental Justice School for Activists.

A just transition requires that we move to a regenerative economy instead of the present extractive one. This means that, among other things, we need to aim at zero waste and food sovereignty. This booklet focuses on zero waste. It helps us to think about what we mean by waste and what we can do at an individual and organisational level.

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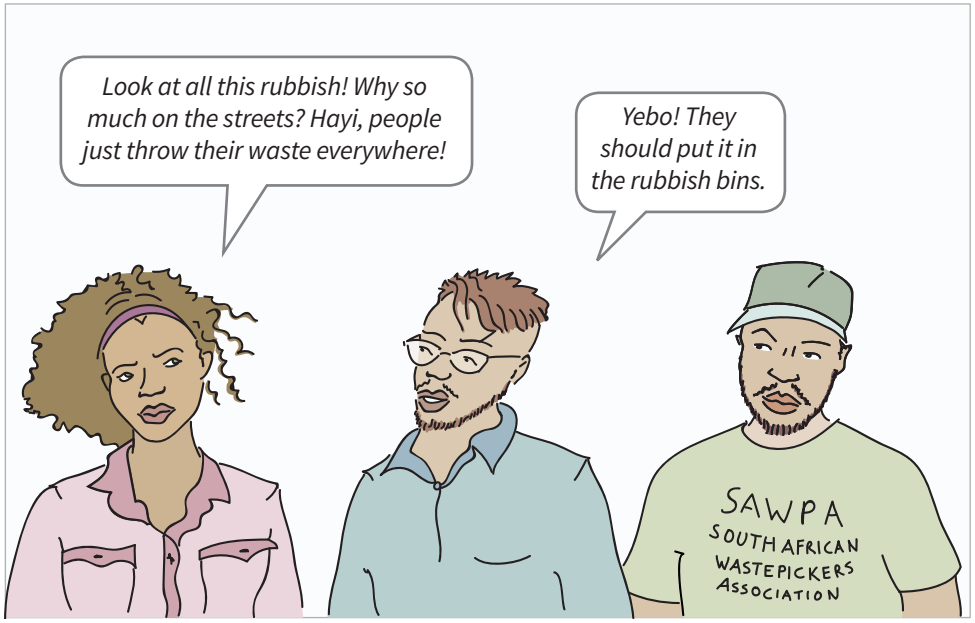
ENVIRONMENTAL JUSTICE ACTION



Waste

Whether we call it rubbish, junk, garbage, trash or refuse, we are talking about 'waste'.

In fact, people don't agree about what counts as waste. Let's take the example of a second-hand cell phone. For the person who is throwing it away to get a new smart phone, it is waste. For the person who gets hold of it and uses it, it is a useful and important possession. So, the phone is waste in one context and a valuable possession in another. The same applies to other goods. Take the example of office workers. For them, used paper is waste. For the waste picker, it is a resource to be sold for money to paper recyclers. It will be used again. So, we can see that waste is, in fact, not all waste. Much of it is resources in the wrong place which can be repaired, reused or recycled.

People throw away things if they don't need them anymore, if they don't want them, or if they have more than they can use. They throw away broken fridges and umbrellas. Most people think of these things as waste. And then they think that waste must be got rid of. Into the bin, into bin bags, off to the waste dump! Or they just throw things into the street, out of the car window or down a bank behind their houses.

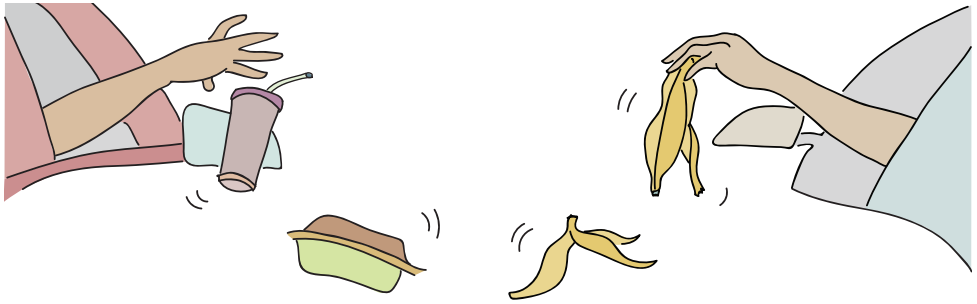
Out of sight and out of mind!

But hold on a minute. Let's ask ourselves if this has always been the case everywhere. In different times, especially before we relied on industrial machinery, people lived in greater harmony with nature. Some groups of people in some remote places still do, for example, the Hadza, modern hunter-gatherer people living in northern Tanzania, and Amazonian peoples living in the Amazon rainforests of South America.

To think about what we can do about waste, here we first look at:

- what happens to waste in nature
- different kinds of waste
- waste as a political issue

We then look in detail at plastic. After that we look at a different economy, namely the regenerative economy and some of the different solutions to waste that are put forward, both the good and the bad ones.

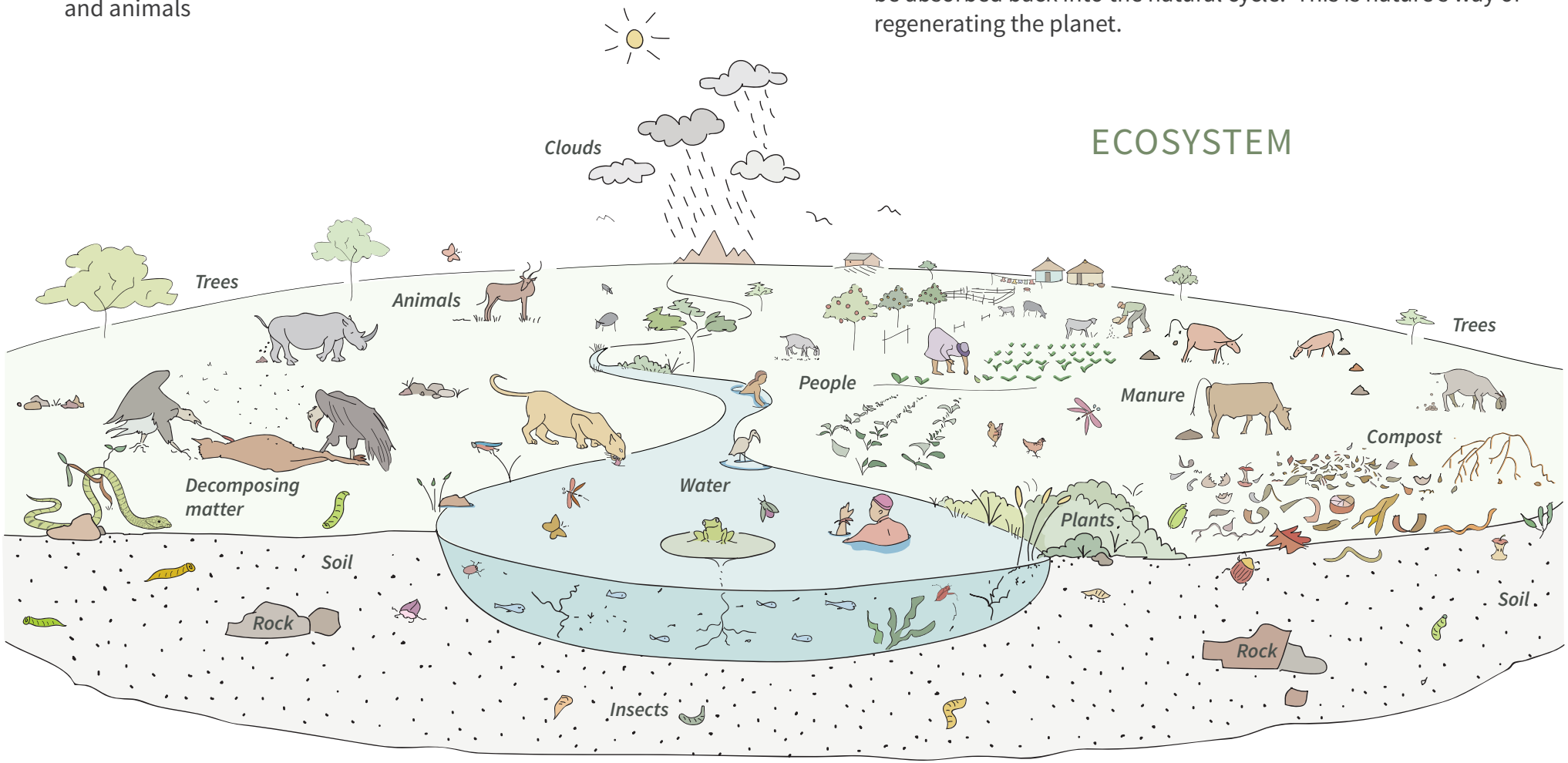


No waste in nature

The important point is that there is no waste in nature. Nature takes care of its waste. In a natural space, everything is part of the natural (or ecological) cycle. Things we often think of as waste are actually important parts of the cycle of nature. Here are a few examples.

- Dead branches and leaves from trees rot down to produce compost for plants and food for small creatures
- Left-over food and vegetables also become nutrition for plants and animals
- Animal droppings become manure and make the soil rich with nutrients
- The body of a dead animal becomes food for birds (like vultures), animals (like hyenas) and insects

In other words, what we might think of as waste is reused and reprocessed in the natural world. Everything that you might think of as waste is a resource and is absorbed in the natural cycle. Natural materials break down. There is nothing natural that cannot be absorbed back into the natural cycle. This is nature's way of regenerating the planet.



What is waste?

Waste is a word we use to speak about a whole lot of different things we come across at every point of our lives — from our homes, to shops, markets, community buildings, offices, streets, beaches and parks, building sites, building demolitions, farms, factories, mines, and sewerage plants — in fact everywhere!

Waste can be classified or grouped in different ways.

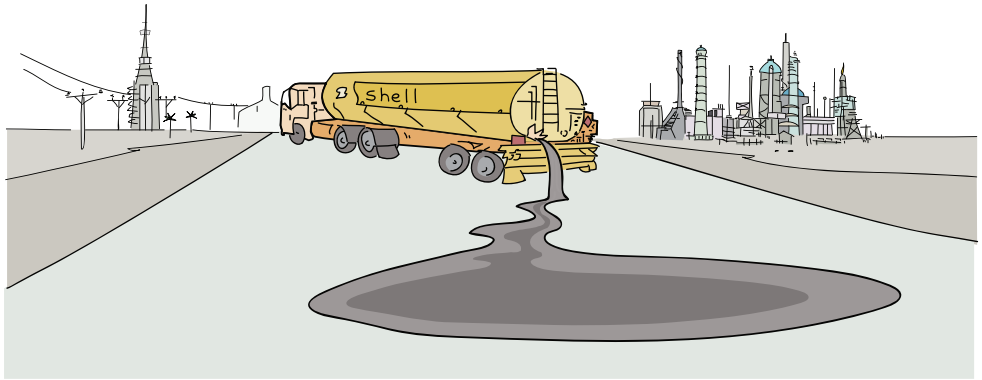
Solid, liquid or gas waste

We mustn't think about waste only as solid things that we can see and touch like paper, tin cans, plastic bags, dirty nappies or old shoes. A simple way to classify waste is whether it is:

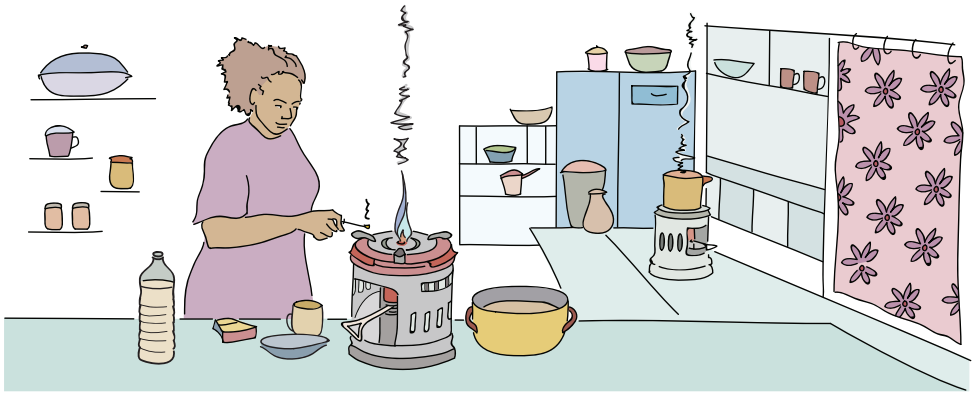
- solid
- liquid or
- gas

Solid waste can be anything from an unwanted plastic teaspoon to a cargo ship.

Liquid waste can be anything from household sewage (human waste) to oil that has leaked from an oil tanker.



Gas waste can be anything from the fumes from a paraffin stove to the gases from a coal-burning power station



Hazardous or non-hazardous waste

Another way to think about waste is whether it is:

- hazardous or
- non-hazardous

Non-hazardous waste is waste that is not dangerous to humans or the environment.

Examples of non-hazardous waste are vegetable peelings, glass bottles and tin cans.

Hazardous waste is dangerous to humans and/or the environment. It can be toxic (poisonous), corrosive (corrodes and rusts), explosive, ignitable (catches on fire easily), infectious or radio-active (gives off dangerous radiation).

An example of hazardous waste is a simple torch battery or, at the other extreme, the leak of radioactive material as happened at the nuclear plants in Chernobyl and Fukushima.

Hazardous waste can be found and produced anywhere, even in the home.

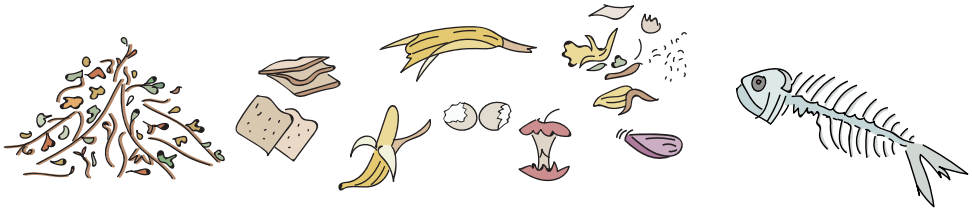
Organic or inorganic waste

Another way to think about waste is whether it is:

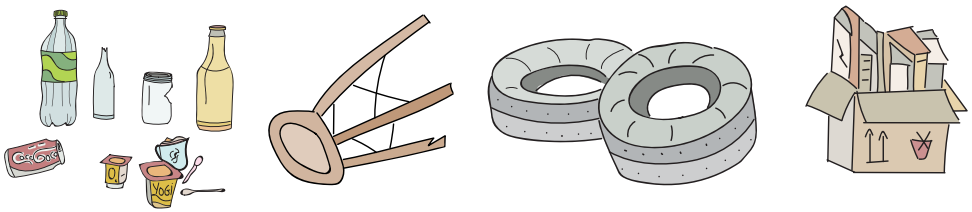
- organic/biodegradable
- inorganic/non-biodegradable

Organic waste is waste that comes from animals and plants (that is things that used to be alive). This waste can be broken down into compost by living organisms like bacteria and animals.
Inorganic waste is made up of minerals which cannot be broken down by living organisms.

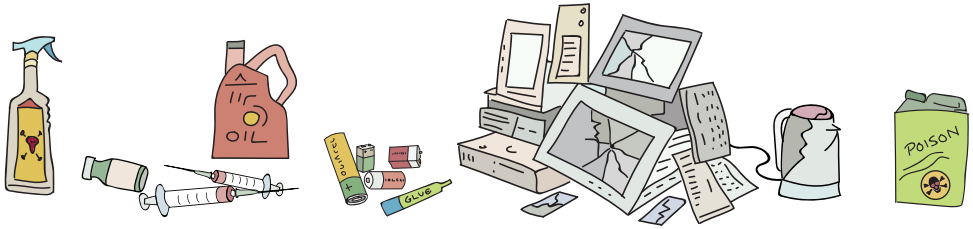
Organic waste examples: tea leaves, food scraps, banana peels, bread crusts, paper, paper towels, cardboard



Inorganic waste examples: plastic bottles, glass, yogurt cups, spoons, clingwrap, aluminium cans, plastic bags



Hazardous inorganic waste examples: batteries, pesticide containers, medicine bottles, motor oil, cell phones



Source of the waste

Waste can also be classified according to where it comes from, that is, the source. The most common sources and generators of waste are:

Sources of waste	Examples of waste
Households	food, paper, plastics, cloth, bottles, broken furniture, garden waste, ash, batteries, oil, disposable nappies, sanitary pads, cans, sewage
Offices, shops, institutions like schools	paper, packaging, plastics, food waste, polystyrene, e-waste
Hospitals and clinics	syringes, PPE, medicine, used dressings, plastics, incinerator fumes
Construction and demolition sites	concrete rubble, metal, broken bricks, old tar, electric wires, asbestos roofing
Farms and plantations	plant and animal waste, methane gas from livestock, pesticides, bark and branches
Industry	toxic emissions, liquid effluent, chemicals, plastics, offcuts of all kinds
Mining	slag heaps, toxic gaseous emissions, toxic water waste, slurry, tailings (left over after the valuable mineral is taken out and what mine dumps are made of)

All of these sources can produce solid, liquid and gaseous waste.

All of them can produce hazardous (dangerous) and non-hazardous waste.

All of them can produce organic and inorganic waste.

We are used to only thinking of mining and industry because they are the worst producers of hazardous and inorganic waste of all types. They are the worst, but we also need to think about hazardous waste and inorganic waste in our own homes.

Now the big question is: what do we do about all this waste? But before we do that, we need to look at waste in the context of a capitalist, extractive economy.

Waste is a political issue

We live in a world dominated by a capitalist economy that encourages us to buy, buy, buy – to consume, consume, consume – and then just throw the stuff away only to buy some more stuff[1]. Capitalism depends on an extractive economy[2] that takes out more and more raw materials and energy, and turns them into goods or commodities. The goods or commodities are sold in order to make large profits for the capitalist elites. They then use the profits to invest in more production, which means more raw materials and energy are used. This never-ending cycle keeps on using up resources and it creates ever-increasing piles of waste.

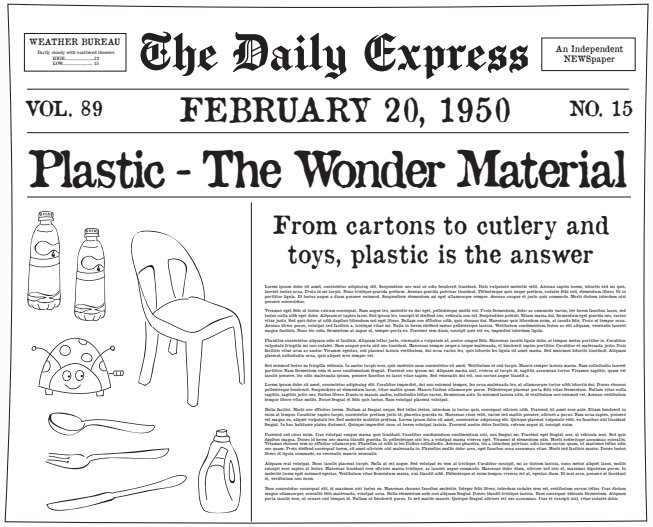
1 Watch *The Story of Stuff* and *The Story of Plastic* on YouTube. You'll find the link on https://www.groundwork.org.za/resourcesejs.php

2 Read *The Life Cycle of a Cell Phone* and *A Just Transition: Economy, Ecosystems, Equality* booklets in this groundWork series. They discuss capitalism and the extractive industry in more detail.

This waste is very different from the waste produced in nature, both in the amount of waste that is produced daily and in the kinds of waste. Scientists have invented new materials that are not produced in nature, like plastic and polyester (which is actually a kind of plastic). Modern technology has produced these new materials in large quantities. These new materials were welcomed when they were first developed as a great sign of progress. Unfortunately, the designers and inventors of the new materials did not think about what would happen when the goods were no longer used. They do not compose and now we look at plastic in detail.

Plastic

Plastic was developed during the first half of the twentieth century. When plastics were developed, they were welcomed as wonder materials because it's possible to make a huge range of products with it.



WEATHER BUREAU

The Daily Express

An Independent NEWSpaper

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Plastic - The Wonder Material

From cartons to cutlery and toys, plastic is the answer

Plastic was used to replace everyday things like buckets, bowls, baths, shoes, clothes, bottles, building materials and packets – things that used to be made from natural or organic materials such as wood, metal, leather, etc. Plastic objects and packaging are now used throughout the world by rich and poor alike. As a result, plastic has become one of the worst waste problems the world is facing because it is not biodegradable and it never stops polluting the land, the air and the oceans.

Phansi, plastic! Phansi!

Plastic pollutes! The life cycle of plastic

Extraction: 99% of plastics are made from fossil fuels (like natural gas, oil). Only 1% of plastics are made from plants.

Production: To produce plastic, the raw materials are refined first, and then treated with heat to become ethylene and propylene. These materials are used together to create different polymers. This gets a bit scientific, but polymers are made of long, repeating chains of molecules. Many chemicals are used when producing plastic and these make plastic very hard to break down. That's why we see plastic staying in the environment for a long time. In many cases plastics will take up to a thousand years to degrade. This is a very serious environmental problem.

Consumption: The polymers are used to produce a huge range of products which are bought and used by us, the consumers.

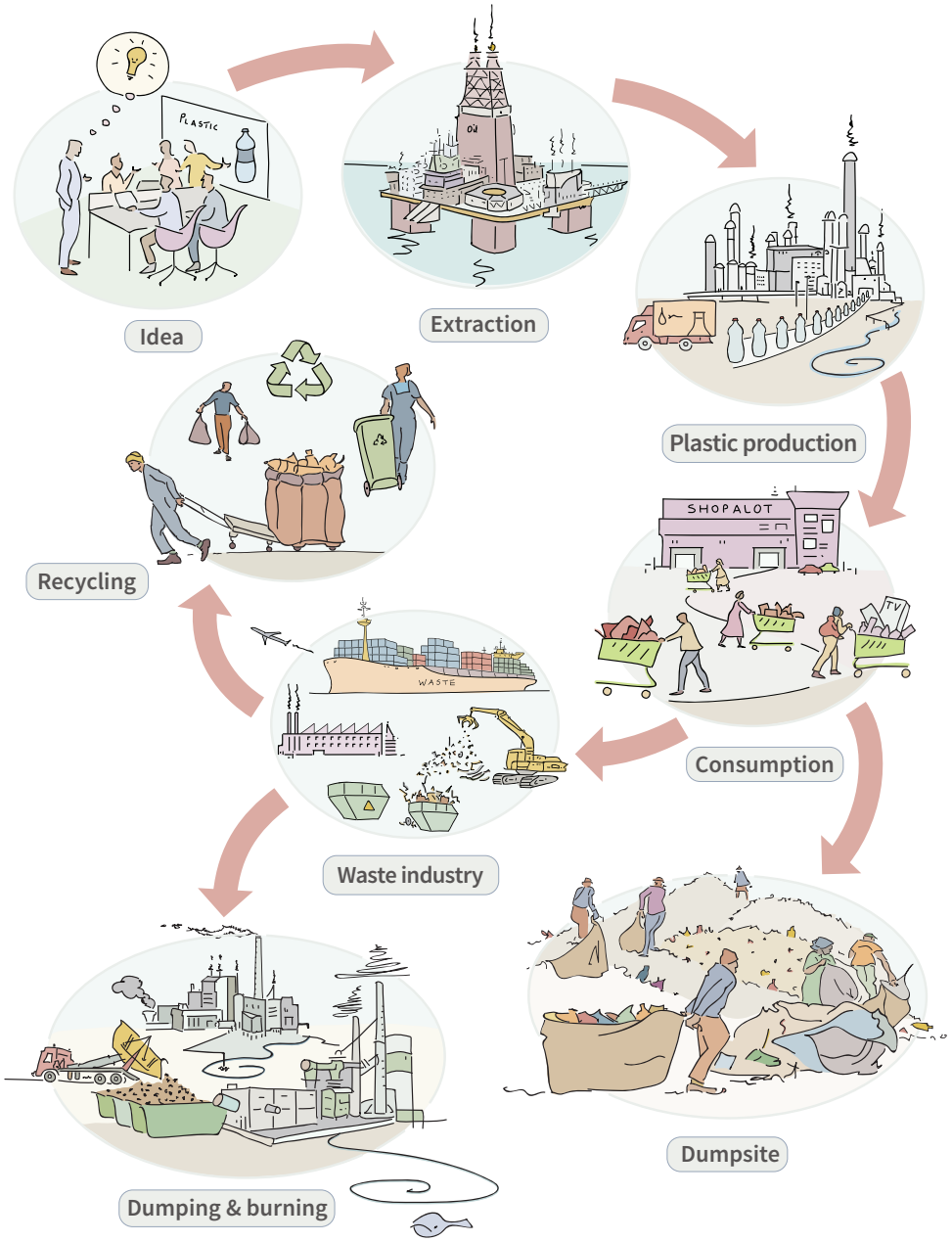
Waste: All the goods that are broken or not wanted anymore, and the packaging, end up as waste. A lot of plastic waste is never recycled but just thrown away anywhere. Some plastic is collected to be recycled, and this is where the waste industry steps in. Sometimes, however, waste is collected but not actually recycled but just dumped! The waste industry in richer countries also often transports plastic waste to poorer countries to be dumped there[3].

Even though it seems as though some plastic waste is 'managed', plastic produces pollution along the entire value chain and not just when it is dumped. It causes air, water and land pollution at the points where it is extracted, produced, transported and disposed of. This cost is carried by the people who breathe in the air, not by the polluters. It is externalised and not considered when assessing the impact plastic has on people.

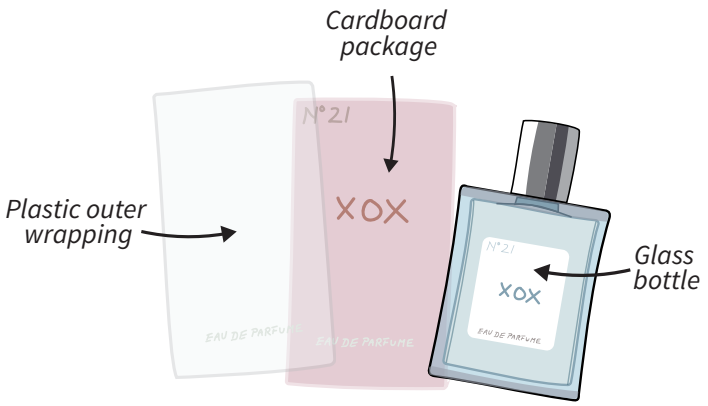
It is very important to remind ourselves that plastic is produced from fossil fuels. The extraction and burning of fossil fuels are the biggest cause of global warming and the climate crisis we face. So, we must realise that plastic and the climate crisis are linked to each other!

3 Ghana has become one of the main destinations for electronic waste from rich countries. Go to the video links on *www.groundwork.org.za/ejs/resources.php* for more on this.

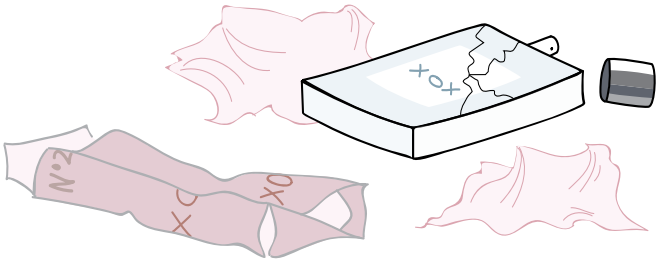
Plastic pollution lifecycle



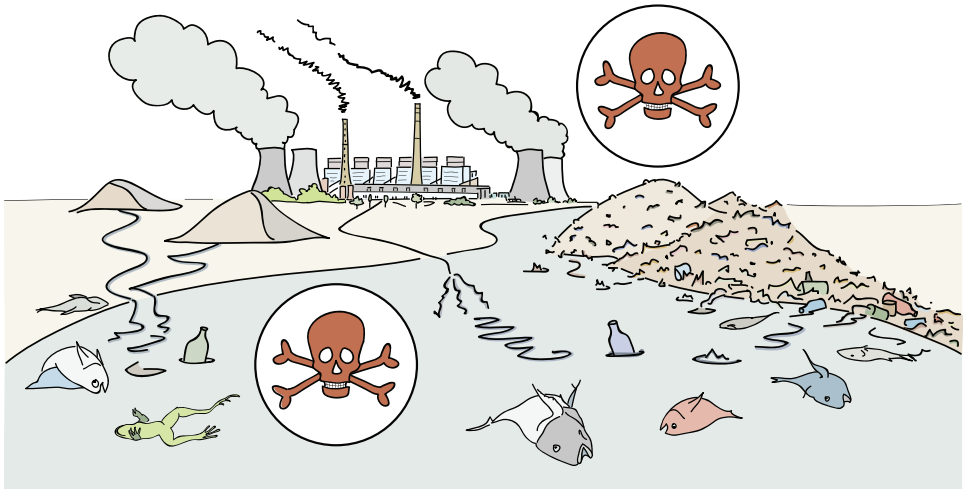
We don't usually think of the waste that the economy produces when we look at all the goods on the shop shelves. The goods are often glossy, and we believe they will make us happier. We don't notice how they are all packaged in plastic that will become waste as soon as we buy the goods. We want the product, but we get the packaging and we don't even use it at all. Let's think about cologne. Maybe you want the cologne to smell good, but what you get is three layers of packaging. First there is clear single-use plastic. Then there is a cardboard box, and finally you get the glass or plastic bottle to hold what you want – which is the cologne itself.



The packaging waste all ends up in dump sites, or is burnt on the street where it produces toxic fumes, or it ends up in rivers and the ocean which are already highly polluted.



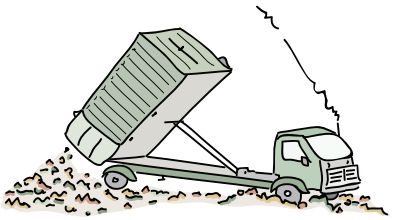
The extractive economy is an economy of waste. It is an economy that relies on throwaway and single-use materials, and results in a huge waste problem all over the world.

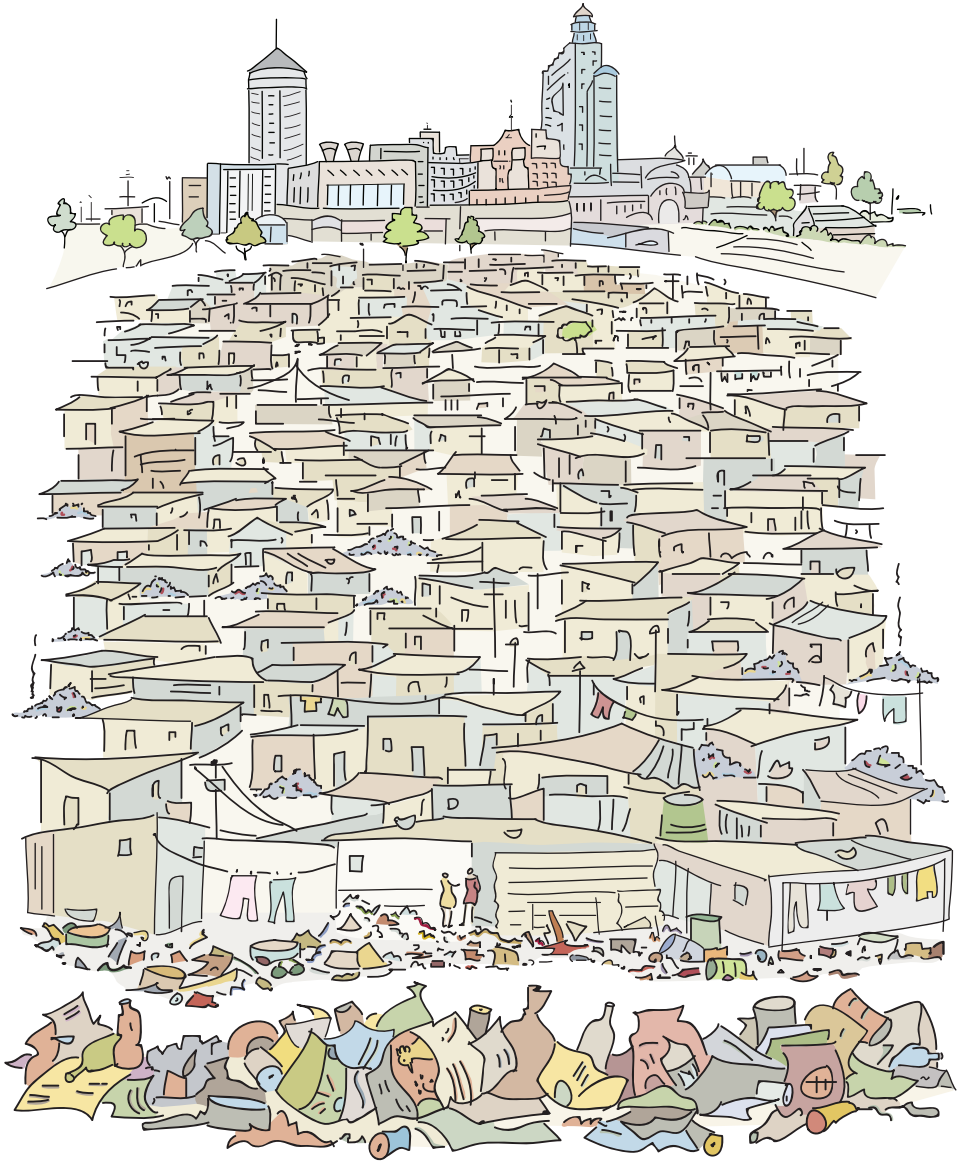


Its main purpose is to make profit and to close in the wealth and power for the few[4]. Making profit for the few relies on externalising the costs onto the poor. This means that the costs of capitalism are offloaded onto workers, communities and the environment. It also depends on always growing new markets for its products. We often hear about 'growing the economy' as though it can grow and grow without end. As a result, a 'throwaway' attitude (that is justified on the grounds that it is convenient) is vital to the capitalist, extractive economy expanding endlessly. Capitalism is the root cause of the global waste problem.

4 Look at the groundWork pamphlet on the three e's for an explanation of externalising.

We forget that behind every item on the shop shelf lies a chain of waste and destruction which spreads through the air, the water, the land and people's bodies. We forget that this waste-producing economy looks after the wealthy elite. It produces inequalities between people, and it is responsible for climate change and global warming which will destroy life on the planet if things carry on in this way. We also forget that most of the waste dumps and landfill sites are in poor areas far away from the wealthy suburbs.





The problem of what to do with waste becomes spoken about as 'managing' waste. (Note: it is 'managing' not preventing waste!) It falls to government at national and local levels to develop policies to 'manage' this waste, for example by the ministries that are now called the Department of Forestry, Fisheries and the Environment, and the Department of Water and Sanitation in South Africa.

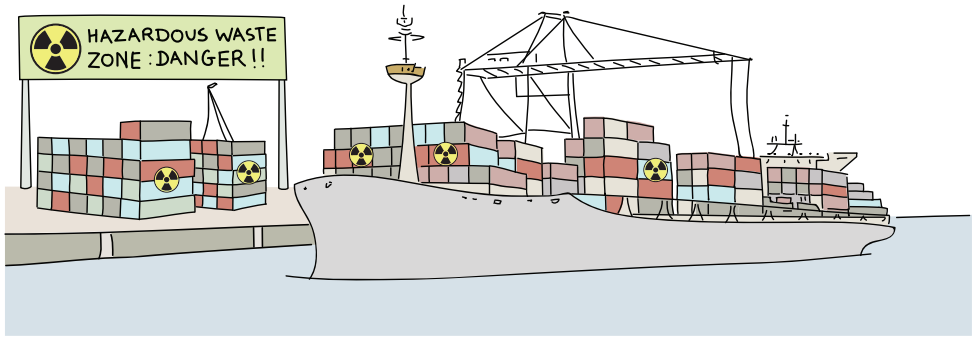
This gives the impression that waste will be managed properly, but it is far from what actually happens. What is called a 'landfill' is often just a dump site — out of sight of the elite, of course. All kinds of waste end up at the dump site including toxics and the waste gives off gases like methane. Landfills only hit the news when there is a disaster, for example the Pietermaritzburg dump has made headlines as a result of the fires giving off destructive and toxic smoke over several days.

Waste colonialism

When we speak of colonialism and colonisation we are talking about how one powerful nation takes control of the country it colonises. It oppresses the colonised people and keeps the wealth for itself.

Waste colonialism is a bit different, but it has the same result. It describes how rich countries, that produce most of the problematic waste, export it to poorer countries. They can't or won't manage their own waste and so they put the burden of their waste onto poorer countries and people. They *externalise* the cost onto poorer countries.

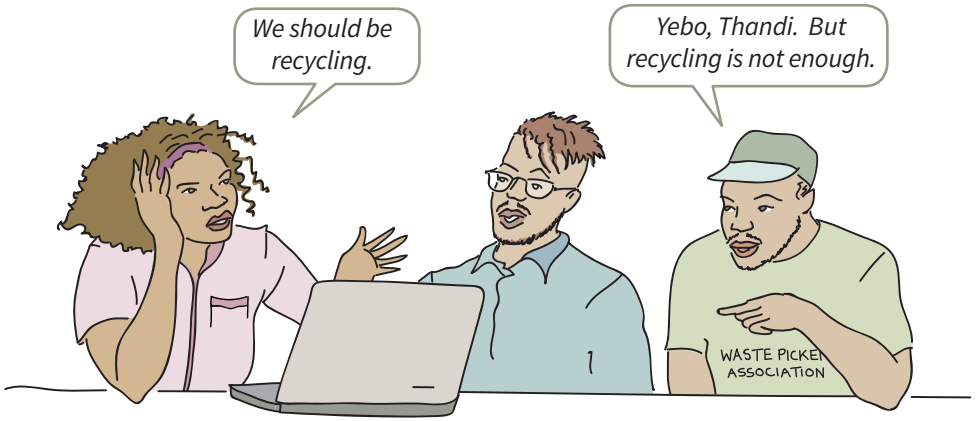
If a country can't manage their own waste, it does not resolve the problem by exporting it. Instead it can be fixed by not producing that much waste in the first place.



A regenerative economy and zero waste

A different economy is possible! Instead of an extractive capitalist economy driven by profits for the rich, we can strive for a just transition[5]. A regenerative economy will aim at people living well with the earth and each other. A regenerative economy would be the outcome of a just transition! The path to zero waste is an essential part of a just transition. It is one that the world must take for us to survive and for the well-being of all and the earth we live on.

Zero waste is a set of principles that aims at more than just managing waste. It aims to prevent waste. The goal is for no trash to be sent to landfills, incinerators or to end up in the oceans. It includes recycling, but it is more than that.



Although we hear quite a lot about recycling, especially of plastic, not enough is being done yet. Although it is important to recycle, it is never enough on its own. Presently only 9% of plastic is actually recycled. What happens to the other 91% we have to ask! Industries that create the waste like to promote recycling as though it is *the* solution to waste. But, not all plastic can be recycled in the first place. Nor can all other materials be recycled. Industry should make products that can be absorbed back into nature, reused or recovered.

5 The *Just Transition: Economy, Ecosystems, Equality* booklet in this groundWork series explains the different economies in more detail

The definition of zero waste is adopted by the Zero Waste International Alliance (ZWIA) as:

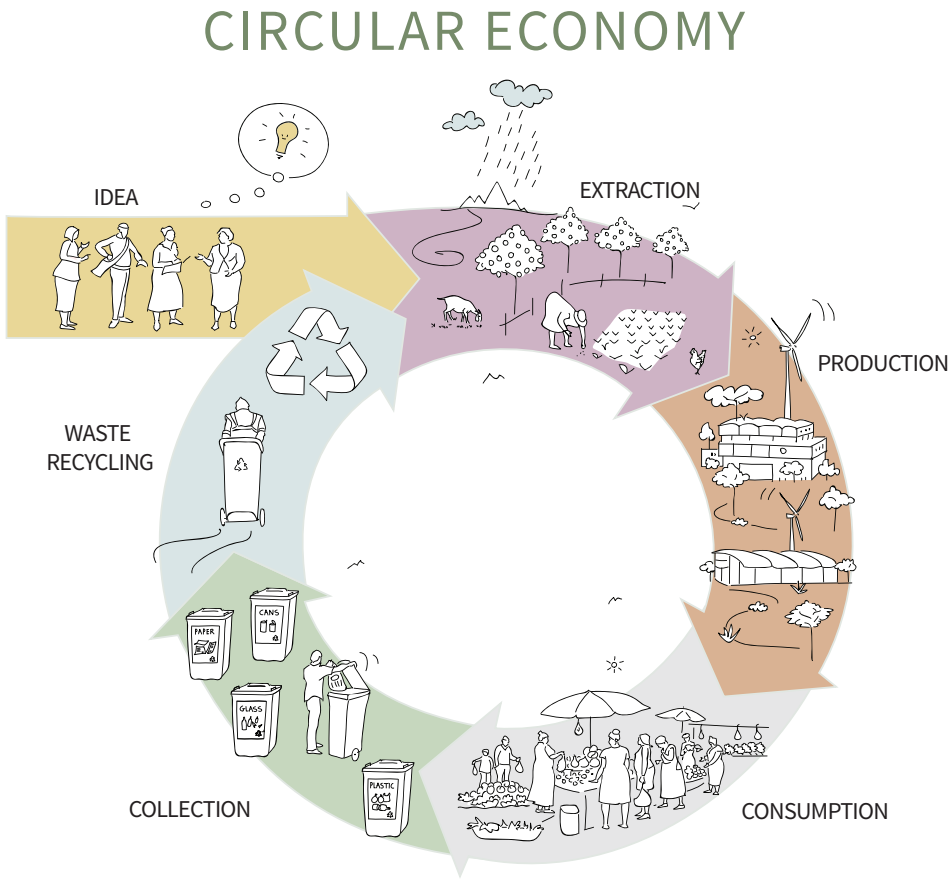
> *The conservation of all resources by means of responsible production, consumption, reuse and recovery of all products, packaging, and materials, without burning, and without discharges to land, water or air that threaten the environment or human health.*

Just imagine a just, zero waste world built on respect for the limits of nature and for the rights of communities. Imagine a world without toxic pollution, and where resources are used, not burned or dumped.

A just, zero waste world can't be business as usual. Zero waste means we must conserve and protect all resources. This depends on changes – changes on the part of us as individuals and members of organisations, but, most importantly, on the part of industry and manufacturers of goods. They need to begin with how goods are designed right from the start to make sure that they don't produce unusable waste. This will result in changes in the way the goods are produced, used and then recovered for use again. We are talking about more than only a change in behaviours. A regenerative economy calls for changes in the structure of the economy and in how things are done all along the chain of production. If a product is designed responsibly, it can be produced responsibly to make sure that it can be recycled or its parts reused or absorbed back into nature.

Waste we can manage

Let's begin with what we can do at the personal level of the household and the organisation. We need to adopt a different mindset that does not think about 'managing' waste but preventing waste. To do this, people have come up with the idea of a waste hierarchy which we can use. It not only goes beyond throwing waste onto dumps, but it also makes sure that resources are valued and preserved in the economy for the new generations.



Think of the waste hierarchy as 6 layers. As you go down the hierarchy the waste becomes less and less. Note that each of these words start with R. This waste reduction strategy is sometimes called the 6Rs.

Resist
Say NO to what we don't need
No to plastic bags and unnecessary packaging!
No to mixed materials!

Reduce
Minimise the waste you produce
e.g. turn organic waste into compost

Reuse
Check, clean and repair parts of a product that have become unusable.
Keep what can be re-used

Recycle
Separate materials that can be recycled. Get them to a recycler

Recover and repurpose
Recover materials and repurpose

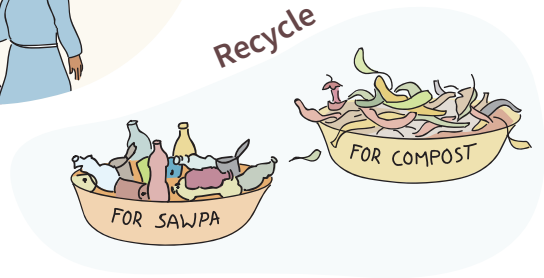
Residuals managed (waste that is left over)
Treat waste that can't be recovered with care, notably hazardous waste, Single-use plastic and mixed materials make up a huge amount of residual waste.

Resist

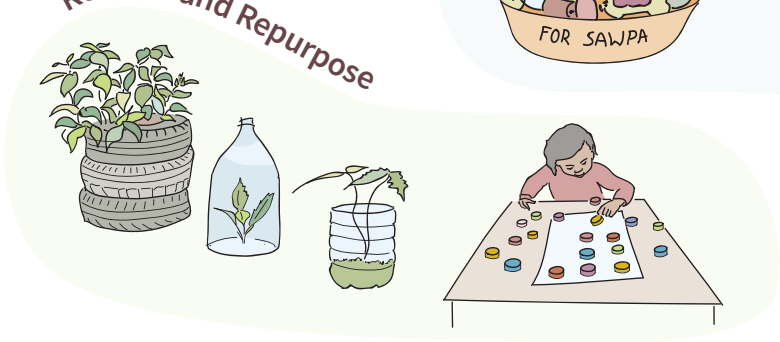
Reduce

Reuse

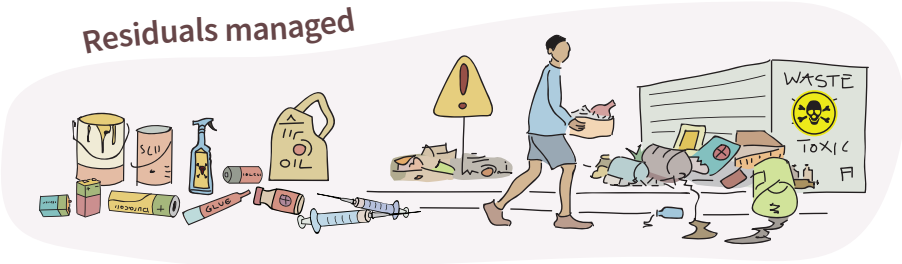
Recycle



Recover and Repurpose



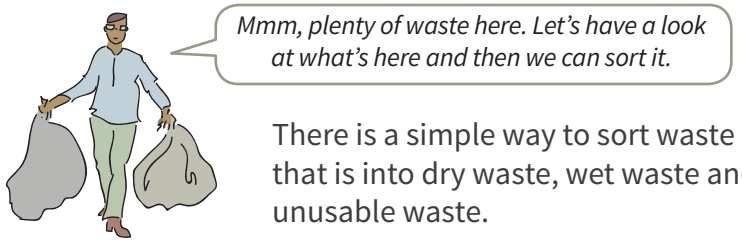
Residuals managed



What to do with waste?

When we don't keep the waste separate at its source and we toss it out as mixed waste, it leads to many problems. If you recycle, you throw away much less to go to the dump. If you don't, there is much more waste. It all needs to be transported and it mostly ends up on landfills or dump sites.

The wet waste rots. It starts to stink. When it is mixed with rubber, paint and medicines (the hazardous waste), it creates a terrible mixture. When the mixed waste starts to break down, it creates heat and dangerous gases. One of these gases is methane. The landfill site can begin to burn and create dangerous fumes which people close by will breathe. The chemicals soak into the soil and get into the underground water. So, although the waste has been 'managed' and is out of sight, it carries on polluting the air, water and soil.



There is a simple way to sort waste at home, that is into dry waste, wet waste and toxic or unusable waste.

Dry waste

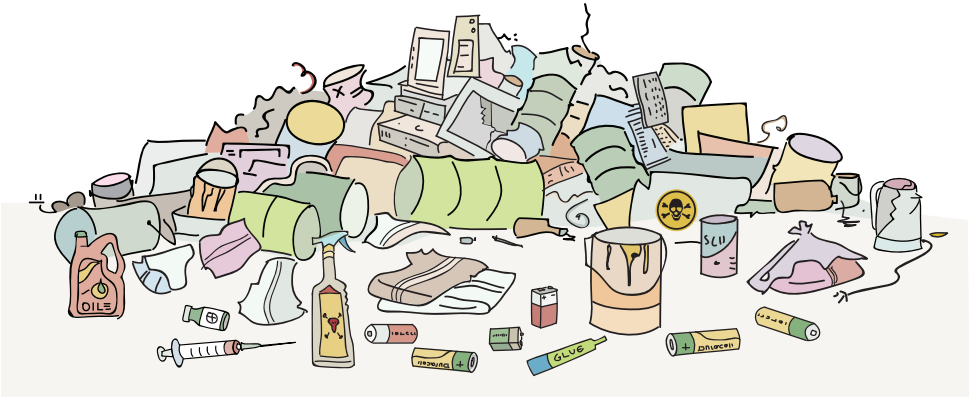
Dry waste can include paper, cardboard, plastic, cloth, leather shoes, imitation leather, polystyrene, rubber, glass and tin cans. Not all of these can be recycled and they end up at the dump, landfill or the ocean.

Wet waste

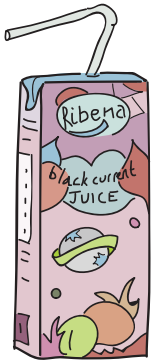
Wet waste is organic waste and includes fallen leaves, grass cuttings, vegetable stalks and peels, fruit peels and seeds, dried flowers, sawdust, wood ash, hair, leftover food, bones, fish bones, coconut shells, etc. We can turn this waste into compost which will nourish the soil. Organic waste can also be turned into biogas.

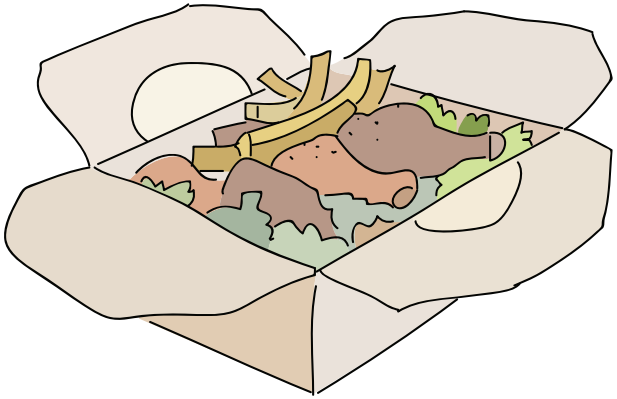
Toxic waste

Unusable and toxic waste is what is left when we have removed the dry waste and wet waste. We are still left with a pile of rubbish. This can include injection syringes, expired medicines, disposable nappies, sanitary pads, batteries, and paint tins. Some of this is hazardous waste that needs to be managed very carefully.



Now for a question you may be asking yourself. Is a wet paper packet or a wet rubber cloth wet waste or dry waste? Does wet really mean wet, do you think? Well, the answer is No! Wet waste includes organic or living things. So a wet bottle or a wet plastic sheet are 'dry' waste and NOT wet waste. Think about it like this. If you buy a takeaway snack, maybe a fruit juice (in a tetra pak container) and a snack in a polystyrene tray, the packaging is dry waste, but the contents are organic waste.





Biogas

In addition to using wet or organic waste for composting, using it for biogas is another option. To trap the biogas you need to build a structure to act as an **anaerobic digester**. There the organic waste is broken down. What this actually means is that the organic waste goes into an airtight container and is broken down by microbes. (Microbes are tiny living things too small to see without a microscope.) The waste can include household and garden waste and also animal manure. Toilets can also be linked directly to the digester. The matter in the container first breaks down to slurry and then to biogas.

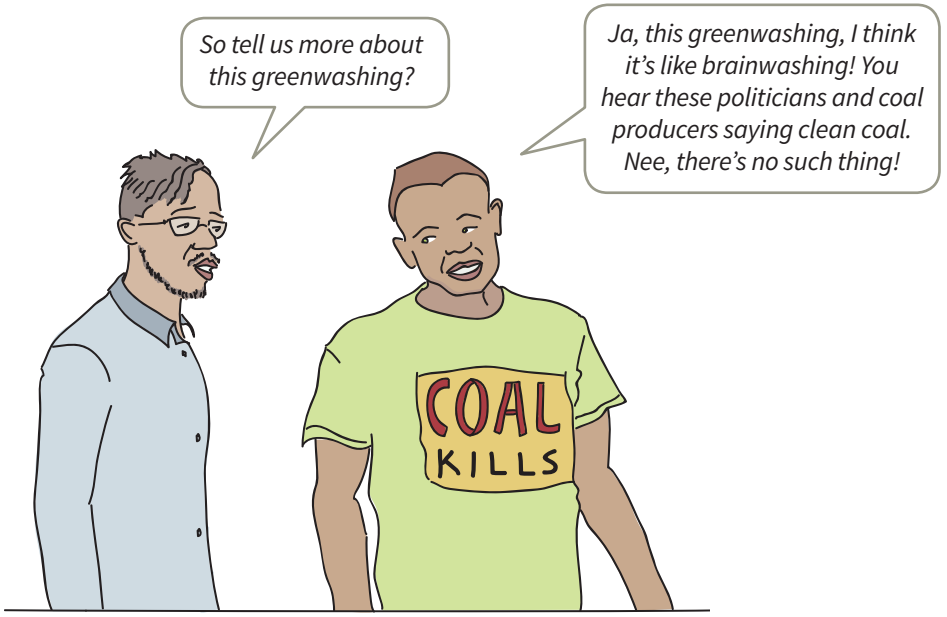
Biogas is a source of renewable energy that can be used for electricity, heat and light. It can often replace fossil fuels in providing energy and so reduce greenhouse gas emissions. The slurry that is left over can be used as nutrients to fertilise plants too, so there's no waste left over. You can build biogas digesters at household and community levels, as well as at a large scale. The design of the digesters is simple, but they need to be designed by someone with expertise.

Producing biogas as an alternative fuel helps reduce waste problems. They don't take up much space and are not expensive to run, but they do need enough organic material to make them work properly.

Recycling is not enough

Only 9% of all plastic that has been produced across the world has been recycled. This means that 91% of plastic that has been produced is still somewhere on earth. Of course, we still need to recycle. However, although some plastic can be recycled, most of it is not produced to be recycled. Even when plastics can be recycled, they can usually only be recycled once. It is not possible then to solve the plastic pollution problem by recycling.

Industries have realised that consumers are concerned with environmental pollution and climate change. They realise that they need to seem to be concerned and doing something about it. They often encourage recycling so that they will seem to be responsible businesses and so that people will buy their products with a good conscience. But they only tell half of the story. They pretend that we can solve the problem if we just recycle. They do not tell you that lots of what gets sorted for recycling is simply not recyclable.



Coca-Cola — an example of greenwashing

Look at the Bonaqua adverts, for example. It is a Coca-Cola product. By advertising that these bottles are made of recycled material, Coca-Cola promotes the idea that the packaging is environmentally friendly and the brand is environmentally conscious. They want their consumers to feel they are doing something responsible. But we need to ask ourselves what will become of this bottle now. Did you know that Coca-Cola has a terrible record as polluters? When a study was done by collecting waste in 51 countries, the number one brand of the waste collected was Coca-Cola. They are **greenwashing.** In other words the company is giving a false impression or information that is misleading. They mislead us to believe their products are more sustainable than they really are. They want us to believe that they are environmentally conscious.

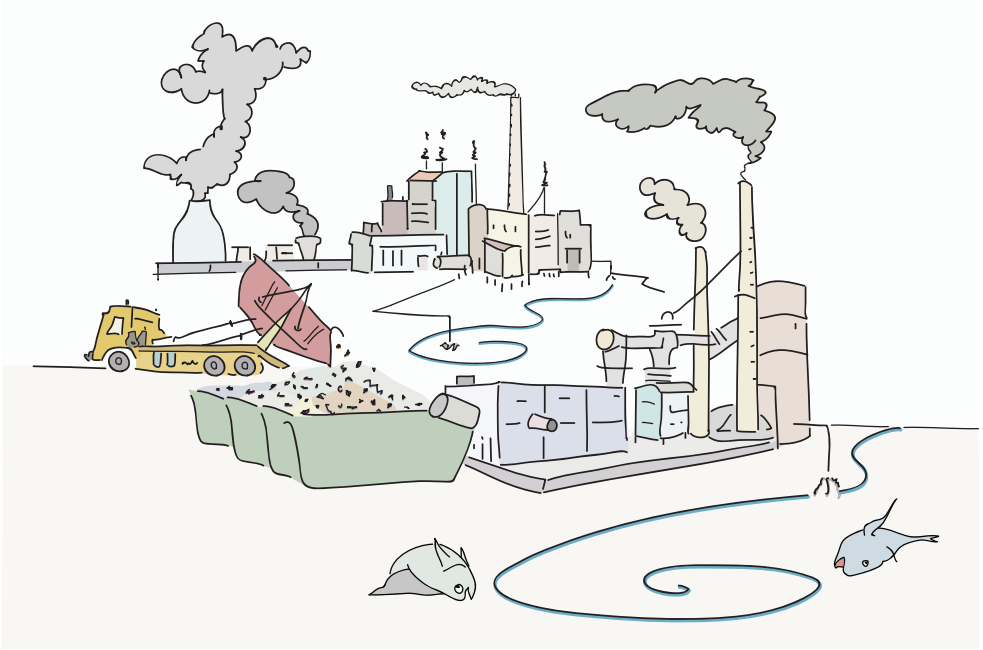
Instead of promoting recycling only, we need to find ways to prevent waste being produced in the first place. The first problem is that most materials are not designed to be recyclable. We have masses of single-use materials like thin plastics and polystyrene. Also, if manufacturers use a mixture of materials, like paper and plastic, or metal or tin foil and plastic, these items are difficult to recycle. They end up as waste in the ocean and on land. If industry carries on making these single-use items, they will carry on destroying our environments.

False solutions to zero waste

It is very important to hold government and industry to account. There is a lot of greenwashing going on and they propose false solutions to the problems. They might sound like good ideas, but when you look carefully you can see they are not real solutions. They do not treat the root cause!

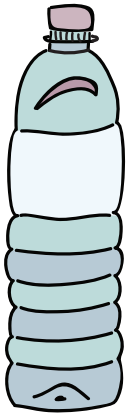
Incineration

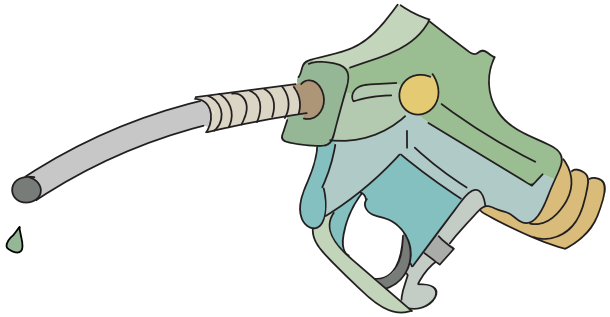
Incineration of waste (or burning, in other words) is often put forward as a solution to waste problems. The burning of waste as a source of energy might reduce the waste on the ground, but it certainly isn't climate friendly. The burning gives off particulates and gases into the air that are toxic and cause serious health problems. Incinerators are mostly sited in poor areas and they are the people who carry the cost of this false solution.



Plastic to fuel

Plastic is made from refined crude oil. Heating and treating the waste plastic can produce diesel and petrol, or be burned directly in boilers to generate electricity. But, this has the same problems as incineration – the process releases large amounts of carbon dioxide and other gases.



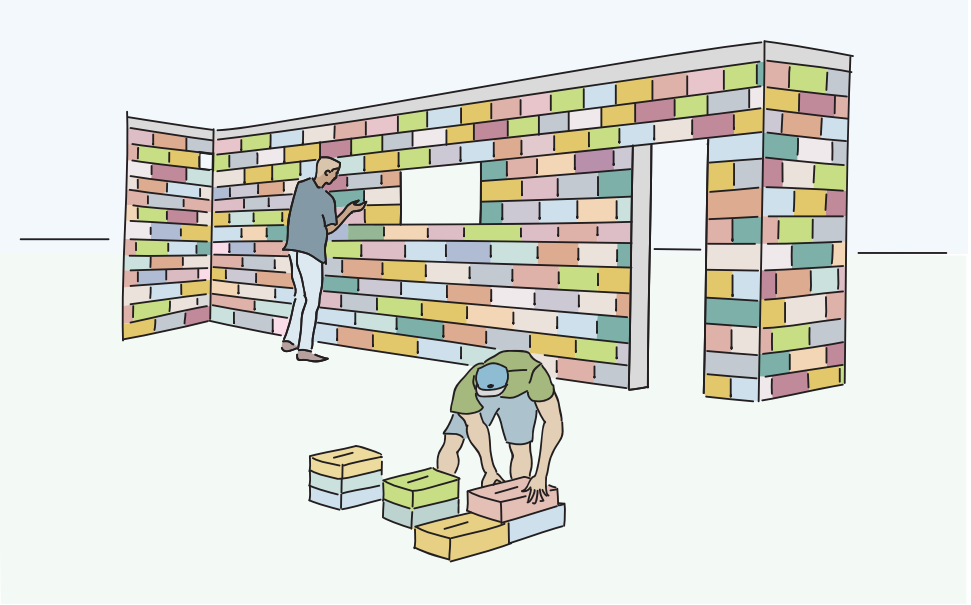


Downcycling

Plastic waste can be used in road works and to make bricks. This sounds like a great idea, but it is not all good. It doesn't deal with the basic problems of plastic. When the plastic is exposed to the elements, dangerous chemicals in the plastic leak out and go into the soil. Also, plastic-based bricks can be a fire hazard!

Bio-based plastic

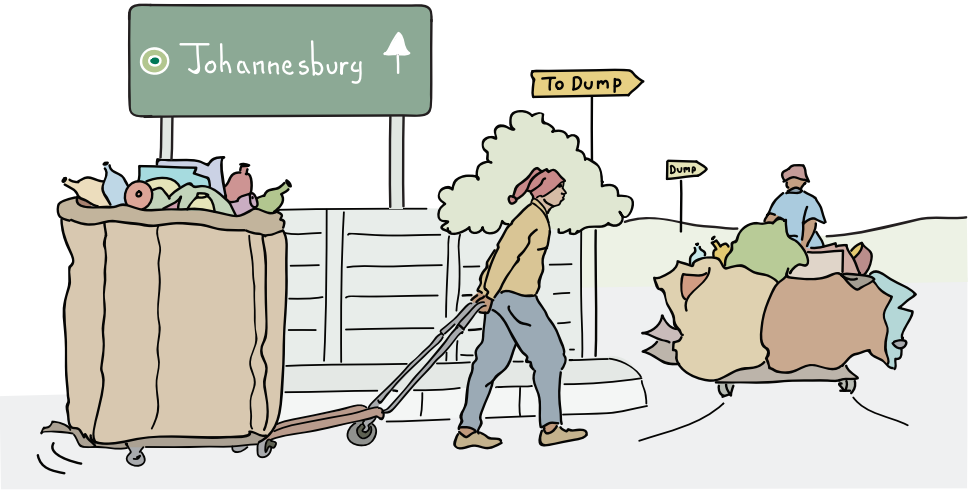
Bio-based plastic is made from plant cellulose and is often promoted as being eco-friendly because it doesn't use fossil fuels. However, this bio-based plastic can be as bad for the environment as plastic produced from fossil fuels. Bio-based plastics are single-use plastics to start with. Technically they are biodegradable, but the conditions under which the plastics will biodegrade are so specific that it is unrealistic to think of this as a viable solution to the plastic pollution problem.



The work of waste pickers

Many people think of waste pickers as dirty, poor and uneducated people who scratch through rubbish. This attitude that they are doing something bad is quite simply wrong. People who think this don't realise that what waste pickers do is actually very valuable.

Waste pickers or reclaimers, as they are often called, collect around 80 to 90% of all the packaging, paper and materials that are actually collected for recycling. This waste would have ended up in landfills or dumps and costs municipalities much more money to manage. Actually, waste pickers are skilled knowledge-workers who sort our materials for us and our cities or local municipalities. They turn our rubbish into a recycling economy. The question we must ask then is: if they are cleaning up the waste, who indeed are the dirty ones?



A waste picker's tale — Nono's story

I'm a member of the South African Waste Pickers Association (SAWPA). SAWPA is an association of waste pickers or reclaimers. We work on the streets, at landfills and in communities. Some waste pickers collect recyclables from households and businesses too. We are self-employed — we salvage materials which other people call waste and we exchange it for cash at the end of the day.

Most of us wake up at around 4am to pick waste from the streets or the landfill. We easily walk more than 20 kms a day collecting the materials. At the end of the day we get paid for the amount of waste we sell to the recyclers. It's hard work and we make between R200 and R1000 per day, depending on the amount and type of materials we collect that day. I tell you, we work for our money! We waste pickers and reclaimers earn our livelihood from picking waste and we earn an honest living.

Ja, the one thing though is that sometimes we get treated like rubbish ourselves. Hau, they say we are scavengers. The thing we want is for people to recognize that the work we do is good for society. We want respect and support. I must also tell you, the work we do is very valuable for society. We help keep the environment clean by picking waste. Also, our work decreases the impact of climate change because the materials get recycled.

We really need support from the municipalities we work in. If waste pickers and municipalities worked together, we would be able to manage the waste that can be recycled much better. It can be a win-win situation. If we are integrated into the planning of the municipal waste management it would really help us waste pickers. At the same time, municipalities would reduce the waste that is dumped in landfills. This would prolong the lifespan of the landfill.

SAWPA, my organisation, does important work – it organises nationally and builds solidarity. It is the responsibility of everyone to accept and promote the work of waste pickers.

These are the materials that waste pickers often collect.

Paper

- cardboard
- white paper
- packaging

Metals

- aluminium e.g. cans
- iron
- brass
- copper
- stainless steel
- zinc
- lead

Plastic

- HD (high density) plastic e.g. garden chairs
- LD (low density) plastic e.g. strong clear wrapping plastic
- polyprop, that is strong plastic like milk bottle lids
- PET e.g. coke bottles

Waste pickers do not collect all materials. They will not collect materials they cannot recycle. If there is no paper recycling in the area, they don't collect it. If no-one buys polystyrene, they do not collect it either. These are materials that waste pickers in South Africa usually don't collect:

- cling wrap
- polystyrene
- packaging made from mixed materials, like tetra pak (made from thin cardboard glued to aluminium foil)
- plastic straws
- chip packets
- rubber

When you buy goods you can check to see it they are recyclable. Look for the recycling sign.

When you compare the value of types of waste, it is important to remember that some items are much heavier than others. So a kg of aluminium cans is made up of a lot of cans. Cardboard is heavy so a kg of cardboard is easier to collect.

We can all do our bit by separating our household waste and contacting individual waste pickers in our area or a waste pickers' organisation like SAWPA.

You are probably wondering how much we make for the materials we recycle. Well, it depends where you live. I can tell you what we could get on the Vaal in 2021 for one kg of material.

Beyond the household

It's really important that everyone begins to prevent waste as much as possible, but this alone is not enough. A transition to zero waste requires action on the part of government and industry.

Government

To get closer to zero waste we need government to guide this process through regulations and legislation mechanisms. Moving waste away from landfills to recovery must be a priority and this has been realised by government in South Africa in the *Waste Picker integration Guidelines for South Africa*. It aims at:

> *the creation of a formally planned recycling system that values and improves the present role of waste pickers, builds on the strengths of their existing system for collecting and revaluing materials, and includes waste pickers as key partners in its design, implementation, evaluation and revision.*[6]

They would then need to make sure this happens on the part of corporates and industry. In addition, government needs to facilitate this transition especially at local levels. It would also need corporates to take up the responsibility to design and make products to prevent waste from the start.

Regulations were also passed in May 2021 to cover extended producer responsibility (EPR). This means that producers should take responsibility for the full life cycle of the products they put on the market. The producer should manage the waste even after the goods have been sold. Industries now have to make plans to meet the legislation.

6. https://wasteroadmap.co.za/wp-content/uploads/2021/02/Waste-Picker-Integration-Guidelines.pdf

Government must also refuse international dumping on the part of rich countries who don't take responsibility for their own garbage, and unload it in African and Asian countries. Say No!

Industry

Let's go back to the waste hierarchy and see how this translates to industry. The first stage of the hierarchy for us is to **resist**. For industry, resistance must begin with **redesign**. They need to redesign their business models, the goods and packaging in order to reduce the use of resources and the waste that comes with production. When they redesign the production process they can build in the **reuse** and **recycling** of resources that have been recovered. To recover resources, for example, from mixed waste, technologies must be used to make sure that this happens. Designers must think about waste from the very beginning.

Industry needs to comply with the regulations that are being passed, but civil society will also need to monitor them and make sure they become compliant.

A waste picker's tale — Madi Koena

Madi Koena is a waste picker from Paarl in the Western Cape. Hers is an inspiring story about the power of solidarity.

She has been a waste picker since 2014; she collected materials that can be recycled from the landfill in the Drakenstein Municipality. She faced many challenges as a waste picker working alone. In 2017 she joined the South African Waste Pickers Association (SAWPA). Belonging to SAWPA was a good move for her. Together the waste pickers can support each other and work together to improve their working conditions.

Madi, along with other waste pickers working at the local landfill approached the Drakenstein Municipality. They pointed out how waste pickers play an important role.

They recycle materials in the municipality

They save municipal landfill space by diverting materials that would otherwise remain at the landfill.

The municipality recognised their valuable contribution and gave some support. They provided them with a Material Recovery Facility (MRF) with equipment. Now these waste pickers can work in a safer environment. The municipality arranges for waste to be dropped off at the facility. Other local community members also drop off their waste at the facility. They recover materials such as glass, plastic, paper and aluminium. After the waste pickers have sorted through the waste and separated the waste that can be recycled, the municipality sends the residual waste to the nearest landfill.

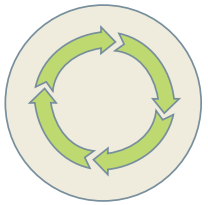
This is a story of collaboration between local government and waste pickers — a story of how this collaboration works to benefit them all.

We can be part of the solution

We need to start with ourselves in our own homes and workplaces and work with our organisations. We can:

Resist

Reduce



Reuse

Recycle

Repurpose

This booklet focuses on zero waste, a necessary pathway to a just transition and a regenerative economy. We can act at an individual level and use the ideas in the hierarchy of waste to **resist**, **reduce**, **reuse**, **recycle** and **repurpose** waste. At an organisational level, we can build awareness of zero waste in our communities and develop projects to prevent waste. We must also build solidarity with other movements. Together then, we can lobby government and intervene in industrial practices.

We have to prevent waste in order to move towards zero waste. There are ways to do this – so now the question is whether we as individuals, organisations, corporates and government will do so.

Aluta continua!

To learn more about the topics covered
in this booklet please visit

https://www.groundwork.org.za/resourcesejs.php