



**BOORLOO - PERTH - WESTERN AUSTRALIA**

# **SUSTAINABILITY HANDBOOK**

**ENVIRONMENTAL  
SUSTAINABILITY IN DAILY LIFE  
IN CONNECTION WITH  
ENVIRONMENTAL  
VOLUNTEERING**



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# Acknowledgment of country

I wish to acknowledge the traditional custodians of the land on which this project was completed, the Whadjuk Nyoongar People. I wish to acknowledge and respect their continuing culture and the contributions they make to the life of this country and this region.



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# **Introduction**



# Welcome



To help you understand where this handbook comes from and who worked on it, I would like to tell you a little bit about me. My name is Kirsten, I am 21 years old, and from Utrecht in The Netherlands, which explains why I'm 6.2ft / 1.88m tall. I have plenty of hobbies including cooking, hiking, traveling, op-shopping, swimming, sewing, photographing, and designing. I have three sisters, my favourite colour is green, and my favourite animal is an elephant.

Right, that was very irrelevant, but just fun to start with. Feel free to forget all of that. The relevant things about me are: I am a student of International Development Management. Through my study program at the University of Applied Sciences Van Hall Larenstein in The Netherlands, I was able to spend half a year abroad for an internship program. Because of my interest in nature conservation, biodiversity, and environmental sustainability, I ended up at **The Wilderness Society** in Boorloo, Perth, Western Australia.

## The Wilderness Society

Australia is an incredible country with very diverse landscapes; tropical rainforests, deserts, rivers, mountains, and marine environments. However, since colonisation these landscapes are under threat from practices such as deforestation, with animal extinctions being a common occurrence. The Wilderness Society is an environmental non-governmental organisation with campaign centers in most of the major capital cities. Their mission is to protect, promote and restore ecosystems and natural processes across Australia for the survival and ongoing evolution of life on Earth. They achieve this by working to hold governments and vested interests to account, and empowering communities on the ground. More information about this organisation and its work is included in part 2 of this handbook.



## Navigation

**The first part of this handbook** is about what you as an individual young person can do to make more sustainable choices in daily life. Think about doing groceries, shopping, traveling, etc. The chapters always present well-sourced information about the sector, recent developments, general context, sustainable alternatives, practical tips, and challenges. **The second part of the handbook** covers some of the many environmental NGOs in Boorloo, Perth and informs you about the work that NGOs are doing for the natural environment of West Australia, how they achieve things, how they involve volunteers, and how you can support these organisations in achieving environmental protection by volunteering.

Let's be clear, you don't need to read this handbook from start to end and I'm not going to make you. Your life is probably busy enough as it is. Of course, you could read everything, but you can also read a few paragraphs at a time, browse through the chapters and see what paragraphs catch your eye, or let the table of contents help you. If you need some more context and want to learn some practical information, part 1 is super useful for you. However, if you already know quite a bit, feel free to browse on to part 2. **This digital handbook is designed to be easily accessible**, so you can open it whenever you can spare a minute.

A prejudice about sustainable choices in daily life, is that they're a shock to your wallet. Unfortunately, sustainable alternatives are indeed often more expensive than the mainstream. But you can make sustainable choices on a budget. If you're here to learn about the ways to **save money** with sustainable choices in daily life, make sure you look out for the dollar icons throughout the first part of the handbook. An example of the icon is displayed on the right.



# The handbook

## The target group

Perth's estimated population in 2023 is more than 2,4 million people, and the city is expected to keep growing over the coming years. The median age is 37 and more than 25% of the population is 15-35 years old.[1] You, as the target group of this handbook, are likely one of the people in this age category. You are probably studying, working, or both. You are expected to find a balance between social life and professional development, while making big choices for your future.

At the same time, the planet is asking for attention. Climate change is increasingly impactful in different parts of the world, and also here in Western Australia. Heatwaves, floods, and bushfires cause destruction and extinction. In the meantime, big profit-focused corporations find their way around government regulations to keep extracting natural resources, polluting nature, and destructing the environment that is in so much need of protection.

The climate and sustainability crisis can be quite complex and overwhelming. If you want to do something, where do you start? How do you take the first step? What can you do as an individual? Where do you find the time? What options are out there? Why would you spend your time on this? Etc.

## Problem statement

Speaking with different environmental NGOs in Boorloo, Perth, I learned that people here are generally prepared to make some daily life choices for the environment such as separating waste or using a reusable bottle, but that the step towards environmental volunteering or being an activist is often too big to take. In addition, the link between sustainability in daily life and environmental volunteering seems to be unclear. This causes an under representation of young adults in NGO community engagement programs.[2]

## The purpose

This handbook aims to tackle this problem. It is a one-stop shop for all the information and context you need to start making sustainable choices. It is not meant to blame and shame but rather, to support and encourage you to take the first step, break patterns and take matters into your own hands.

A general disclaimer that needs to be noted is the following: The risk of this handbook is that – when you are reading about big polluting industries, and their environmental impact – it may upset or demotivate you. Which is why it is important to know that is not the objective of this handbook. You are just one individual, living in a society where a lot of things are decided for you rather than by you. The climate crisis is not your individual responsibility. Sure, you can be part of the movement for sustainability, but eventually, it's the collective effort of consumers, governments, and industries that will realise a societal shift.[2]

## Methodology

This handbook was put together by an undergraduate bachelor student, which might leave you with some questions. Let me explain my background. As a fourth-year student of International Development Management, I have knowledge and skills in researching, connecting, and relating topics to a specific target group. Throughout my study program, I've come across many subjects of sustainability such as the impact of climate change, human rights, natural disasters, human impact on landscapes, sustainable agriculture, global trade of large-scale commodities, etc. I often learned about community building, stakeholder involvement, empowerment, and the impact that can be made through a bottom-up approach. With this knowledge and support from The Wilderness Society WA and other environmental NGOs, I was fully equipped to take on this project.

The methods that I used for putting this handbook together were the following:

### Desk research

A great part of the handbook is written with the support of desk research and already existing information. My task in this was collecting the relevant information, ensuring the sources were trustworthy, and writing the information down in a way that is comprehensive and easy to read for young adults. The sources of the desk research are included at the end of the handbook.

### Target group survey research

To confirm the relevance of the handbook and get a grip on the general opinions of young adults in Perth, I conducted a survey research. 100 young adults aged 18-30 from all over the Perth Metro Area, filled in the survey and provided input for the handbook. This research was not a condition for creating the handbook, but rather acts as supporting material. That is why this research was conducted from December to March. A survey outcome summary is included at the end of the handbook.<sup>[3]</sup>

### Interview research

This handbook is supported by 10 environmental NGOs whose employees helped me understand the context and sustainable developments in Perth and the most important topics within sustainability. These NGOs have confirmed the need for the handbook and expressed their support. They have also provided the input for their own one-pagers in part 2.

# Background

Before taking a deep dive into a few of the biggest worldwide industries and their environmental impact, let's look at **the bigger picture**. With new technologies, trends, movements, and patterns, the world around us is constantly changing. It is important to set the context and note shifts in society, because our choices are an outcome of the systems around us.

## Indigenous knowledge

Indigenous Australians have lived in Australia for more than 65,000 years. People were mostly hunter gatherers, but there is also evidence that proves daisy yams and native grains to be common produce. The land was carefully managed by implying native fire regimes to sustainably enhance land fertility.<sup>[10]</sup> These indigenous communities had adapted their lifestyles to the nation's climate conditions and lived in a sustainable way in balance with the flora and fauna around them while passing on indigenous knowledge from generation to generation.<sup>[11]</sup> With no doubt, the European invasion of Australia in 1789, has largely changed landscapes, culture and population. Indigenous Australians got infected with smallpox or other introduced diseases and were killed in mass. Their land was stolen from them, their lifestyles disturbed.<sup>[12]</sup> Ever since the invasion the natural ecosystem of Australia has changed; natural resources were exploited, animals were going extinct, land was flattened by hard-hooved cattle, and nature was cleared for settlements, infrastructure, and farmland.<sup>[10]</sup>

All around the world, indigenous knowledge is crucial to preserving and restoring landscapes. Although the climate crisis is increasingly recognised, the connection to the loss of indigenous cultures is often lacking. One of the most important parts of indigenous cultures is living in harmony with nature and regulating sustainable resource use, which is why the connection is crystal clear: loss of indigenous culture causes loss of biodiversity.<sup>[13]</sup> Although some indigenous knowledge is integrated in modern society, for example fire control regimes, most modern economic and political systems have little in common with traditional views. In order for us to work towards a truly sustainable future, it is essential that indigenous knowledge is integrated throughout all decision making processes.

## Capitalism

Capitalism is the economic and political system where private entities control a country's trade and industry. In recent decades, developments in industrialisation, liberalisation, and globalisation have caused economic growth to blossom. Although these developments were meant to enhance global trade, tackle worldwide poverty, and encourage economic opportunities in developing countries, they only increased economic wealth and luxury for the rich.[3]

## Linear economy

The most important economic measurement of a nation's wealth is the GNP; Gross National Product. No surprise that actors in trade and industry prefer an economically attractive, linear system.[7] Linear economy is the collective term for traditional economic models in capitalist economies. A linear model follows a straightforward approach with no feedback loop. The aim of businesses in this economic system is to make a profit by selling a good or service to the consumer. The lifecycle phases of linear economy products are: take, make, sell. For this cycle, natural raw resources are extracted from the earth, processed into products, and sold on the competitive liberalised market. There is no regard for the product after it has been sold to the consumer. Producers don't consider the recyclability or reusability of products or packaging after use, as this would add unnecessary costs to the production process and decrease profit margins. The burden of appropriate disposal is left with the consumer.[8] Linear production cycles are known to boost materialism, inequality, poverty and climate change.

## Consumption society

Consumption at its core is the utilisation of goods and services. Often the things we consume are necessary to survive, like food, water, shelter, clothing, and medicine. But what about that new iPhone that's just a bit faster than the previous one, another pair of white sneakers, or a third trip to Bali? These are all things that we don't necessarily need but that bring us joy, make us look good, or give us status.[1] A consumption society is defined as: a society in which people often buy new goods, especially goods that they do not need, and in which a high value is placed on owning many things.[2] This concept is the result of capitalism and linear economy. Individualism and materialism are developments that normalise the purchase of goods whether people really need them or not. This consumption behaviour is supported by countless amounts of advertisements and online shopping developments, leading to overconsumption, throwaway culture, and shopping addictions.[6]

## Climate change

In recent decades, researchers have learned greatly about the causes and effects of climate change including the impacts of polluting industries and other human activities that contribute to it. *Ready for a short science lecture? Very short. I promise.* The cause of global warming and climate change is called the greenhouse effect, caused by four major greenhouse gases. **Carbon dioxide** (CO<sub>2</sub>) is released through natural processes and human activities like burning fossil fuels and deforestation. **Methane** (CH<sub>4</sub>) is a heavy atmospheric gas that comes from the breakdown of plant-matter, human-made landfill, cattle manure, leaks from fossil fuel production, and natural gas. **Nitrous Oxide** (N<sub>2</sub>O) is a greenhouse gas produced through the production and use of commercial and organic fertilizer, burning fossil fuels, and burning vegetation. Lastly, **Chlorofluorocarbons** (CFCs) are chemical compounds that don't exist in nature and are entirely introduced by the industrial sector, used to refrigerate and dissolve substances and makes spray cans work.<sup>[15]</sup> Evidently, the most polluting industries in the world are: energy, transport, manufacturing and construction, agriculture, food retail, fashion, and technology.<sup>[14]</sup>

Climate change has many worrying effects on our planet. Some are difficult or impossible to witness, some are becoming more and more visible in places such as Australia. One of the effects of global warming is more extreme weather, causing droughts, floods, wildfires, hurricanes, typhoons, disappearance of ecosystems such as coral reefs, and many more natural disasters. Climate change also form a threat to human health. Natural disasters and heatwaves cause death and bring risk to vulnerable populations, reduced air quality causes heart and lung diseases, and insects and arachnids spread vector-borne diseases around the world. It also causes scarcity of water, food, and natural resources, resulting in unstable livelihoods, hunger and poverty.<sup>[16]</sup>

## Sustainability

The paragraph about the consumption society highlighted that people desire a lot of resources to fulfil their needs. Industries take advantage of this by over-extracting natural resources and fueling mass consumption in order to maximise their profits. The concept of a **triple bottom line of economy** is that the regard for **people, planet and prosperity** are supposed to be balanced. However, profit is often the norm, at the expense of people and planet.<sup>[17]</sup> This imbalance is where the term sustainability comes in. Improving the regard for people's well-being is considered *social sustainability*, including gender equality, universal healthcare, human rights, etc. Improving the regard for the planet is considered *environmental sustainability*, including awareness of climate change, protecting biodiversity and habitats, and lobbying for nature laws. This handbook is mainly focussed on environmental sustainability, as are the NGOs involved, but often the two are interconnected.

From the people, planet, and prosperity perspective, sustainability is defined as keeping these three components in balance. Some more definitions for sustainability that may give you a more holistic understanding of the concept are:

- Fulfilling the needs of current generations, without compromising the needs of future generations.
- The ability to maintain or support a process continuously over time.
- Avoiding the depletion of natural resources in order to maintain natural ecology and biodiversity.
- Recognition that nature and the environment are not an inexhaustible source of recourses, but are subject to protection and rational use.

## Circular economy

Circular economy is a model designed around the 1990s that is based on reducing waste, conserving resources, sustainability, and new economic opportunities. The goal is to create a closed loop in production cycles. In contrast with linear product cycles, circular products are produced with recycled or repurposed materials as much as possible, and therefore do not need (as much) new resources. Besides, these products are designed for durability and manufactured in a way that ensures the material can be easily repaired or reused again and again. Some examples of circular economy in practice are zero-waste grocery stores, upcycled clothing, closed-loop systems, or reusable packaging.<sup>[9]</sup>

## A holistic approach

Opinions about the right approach to tackle sustainability issues and climate change differ. *The political approach* is to hold governments responsible and make it a topic on the political agenda. *The industrial approach* is to hold the goods and services industry responsible and demand that corporations need to green their business. Lastly, *the societal approach* is to hold society responsible and focus on consumer behaviour change. Some people might think that one of these approaches weighs heavier than the other. However, they are interconnected and dependent on each other. Balanced altogether, they form a holistic approach to tackling sustainability issues and climate change.<sup>[4]</sup>



**Part 1:**  
**Sustainability in daily life**



# Introduction

## Purpose

This part of the handbook is focussing on the societal approach, as this is the easiest way for you, a consumer in a society, to contribute to solving sustainability issues. The aim of this part is to **hand you the information** you need about sustainability and highlight some of the most problematic industries out there. It will **inform** you about your personal carbon footprint, societal influence, and the power of common action. It will **provide** you with steps to green your consumption patterns and behaviour, **inspire** you to consider sustainability in daily life, and **empower** you to bring it into your every day conversations.

## Sustainability map

In any city, it may feel like a challenge to find sustainable alternatives. One of the outputs of this project is a sustainability map of this city. This map includes all the sustainability hotspots in Boorloo, Perth, aiming to increase the ease and accessibility for you to take the first steps in greening your consumer behaviour. From op-shops to fresh food markets, from community gardens to vegetarian and vegan restaurants, you can find them all on the map. A note: not every spot in this map is 100% sustainable, ethical, and completely harmless to the environment, because almost nothing is. But at least these places are making an effort for change, and they're a good place to start. Scanning the QR or clicking [on this link](#) will direct you to the map on Google Maps. Take a look at the map and browse around in your suburb. The sustainable hotspots might be closer than you think. And if they're further away than you expected, you will at least get an understanding of what's out there and maybe even visit when you're in the area.<sup>[1]</sup>



## Carbon footprint

A footprint is quite literally something you leave behind on the planet. A carbon footprint, however, is more than just the outline of your shoe. It's the sum of all the CO<sub>2</sub> emissions that are emitted in order to sustain your life. Think about fashion, food, transport, technology, energy, and everything else. In the calculation of a carbon footprint, the total sum of greenhouse emissions of a large sector is split up into small parts, coming to an estimated climate impact per user. Where the big numbers in the following chapters may leave you confused and overwhelmed, breaking it down can help answer questions such as: which activities contribute the most to climate change? And what is the most effective way of doing something?

## **Rich people have large feet**

Often, the size of one's carbon footprint increases with their income. Research has shown that the wealthiest 1% of the world emit 15% of the global carbon emissions, while the poorest 50% of the world are responsible for only 7%.<sup>[5]</sup> An important side note to these statistics is that in order to belong to the 1% of wealthiest people on the planet, you need to own \$165,000 AUD or more.<sup>[3]</sup> To be clear about whom that includes, the Australian Bureau of Statistics estimated that the average Australian household has \$441,649 AUD per person.<sup>[4]</sup> Of course, there's a distinction of wealth within this 1%. It includes people that live a relatively wealthy but lowkey life (for example: a second car, a large house, a regular international holiday, and no problems with buying food and clothing). It also includes millionaires and billionaires that like to spend their money on luxurious things (for example: private jets, first class vacations, real estate mansions, fast cars and super yachts, or a pleasure travel into space). What it comes down to is this: these numbers are the obvious reason why climate activists are not targeting poor communities in developing countries to criticize their lifestyles and stop them from cutting wood or herding cattle. No, it's the relatively wealthy people or rather the profit-focussed, polluting companies, that are targeted for sustainable change.<sup>[2]</sup>

## **What to do with a carbon footprint?**

The carbon footprint calculation can help consumers like you and me to better understand the impact of our choices in daily life and show us what parts of our lifestyle need a bit of improvement. It may shock you and teach you a thing or two about your consumption patterns. It may also inspire and encourage you to make different choices in the future and to put less value on materialistic belongings or luxury items that you don't necessarily need. What's important here is to not let the results overwhelm you and stop you from taking action.

The global average footprint is 7 tons of CO<sub>2</sub> per person per year. Now, it's quite impossible to gather all your CO<sub>2</sub> emissions in a jar and weigh them at the end of the year. That's why there are online calculators that can calculate your yearly carbon footprint. Calculating a carbon footprint is very complex, there are many factors to take into account and it's difficult to measure the impact of a single individual activity. Therefore, it's not possible to be completely accurate. However, you can find many online programs that ask for your household energy use, travel activity and food consumption patterns and do an attempt. Like [this one](#), or [this one](#). You can also take a look at your ecological footprint, which takes into account the resources, including land and water, that are used to sustain your lifestyle, like [this one](#).

# Fashion

**Keywords: industrialisation, large-scale production, fossil fuels, consumption, fast fashion, pollution, waste, sewage systems, human rights, value chain, sustainability, second-hand, greenwashing, certifications.**

## Developments

The fashion industry has been through huge developments since the industrial revolution, but especially over the course of the 20th century. With the worldwide population growing rapidly, so did the demand for everyday products such as food and clothes. Corporate retailing giants started to take over small scale production, with machinery powered by fossil fuels. The large-scale production and introduction of synthetic materials and artificial processes decreased costs, increased efficiency, and boosted the supply of clothes and commercial articles for local markets as well as export markets.<sup>[1]</sup> As a consequence of these developments, the purpose of clothing has shifted. It has become more than a practical and necessary good and used as a way to express class and style. Today, we could not imagine making all of our clothes ourselves or ordering them from a local artisan shop. No, you can extend your wardrobe whenever you want to, even with a few clicks on your phone.

## Fast fashion

Product ranges that change every month, pieces that are trendy one day and ugly the other, materials that are cheap and break after a few wears, and prices that make you seriously question the wage of the people that work in manufacturing. These are some characteristics that help recognise fast fashion. The name is not only based on the minimum time between the design and sale of a clothing item, but also on the flow of items through the closet of the consumer. This particular type of fashion represents the way in which industrial efficiency has gone a step too far. Fast fashion has caused a serious mind shift for consumers. We've gotten used to the continuous supply of cheap and trendy clothes. The low price comes with low quality, but we've accepted that and are inherently attracted to low prices. Why would you pay \$100 dollars for a jacket if you can pay \$10 on a cheap website? Together with the decreasing prices, big companies encourage consumers to buy more and more with smart discounts and package deals. As a consequence, the fashion industry is one of the largest and most polluting industries in the world with many ethical problems which are far from visible to the average consumer.<sup>[2]</sup>

## The issues

### Pollution

The clothing industry accounts for 10% of humanity's carbon emissions, which is the third-largest contribution of any industry. Besides, the production of textiles, from raw material to item, requires a lot of water. It takes 20,000 litres of water, for example, to produce one kilogram of cotton.[3] The chemical process of dyeing, bleaching, and finishing clothing items also requires large amounts of water and pollutes the water badly. All in all, the fashion industry is responsible for 20% of global wastewater. Where 1 in 3 people on this planet still don't have access to clean and safe drinking water, this industry sources fresh water and releases toxic, undrinkable water, often in countries where water resources are already scarce or expensive.[4] In addition, cheap synthetic textiles shed microplastics in the washing and drying cycles. Microplastics are very small pieces of plastic that never biodegrade. Therefore, when these microplastics end up in our water systems, they form a threat to wildlife and can even affect people's health.[12]

**Australia is the second biggest textile-consuming country in the world. [3]**

### Waste

Australia is the second most textile-consuming country in the world, next to the United States of America. An average person in Australia purchases 27 kg of clothing a year and dispose 23 kg of that to landfill. People have become more reluctant with throwing clothes out. Cheap prices, changing fashion trends, and bad quality material leads to a throwaway culture. Items are worn about 7-10 times on average, before being thrown out. Sure, you can sell or donate your clothes, but that is not a long-term solution. 60% of the clothing we buy is made of synthetic materials, meaning they are non-renewable and non-degradable. So once the item is broken or worn out, it will end up in landfill and it will release damaging emissions while taking decades to break down.[3] In the meantime, online shopping has become increasingly popular, and so have services such as 'worldwide free shipping', 'free return within 30 days', and 'payback guarantee'. This encourages people to order large amounts of items online, and send back what they don't like. However, many of the clothing items that are returned to these fast fashion companies end up being burned or sent to landfill - out of sight, out of mind. Production costs have been driven back so far that it is more expensive for these companies to put the items back in circulation than it is to get rid of them. This obviously causes a big waste problem, often in countries where waste is already a big issue.[5]

## Human rights are violated and workers are exploited for the cheap clothes in our closets. [6]

### Human rights violation

The topic of human rights touches upon the social sustainability of the fashion sector. Although not directly related to the environmental impact of the sector, it is still an important topic in the discussion on ethical consumerism.

The fashion industry employs over 75 million people worldwide. Workers in garment factories are often women and children in developing countries. Although some fashion brands are claiming to improve the lives of the factory workers the circumstances are dangerous and unhealthy, the hours are long and non-negotiable, and the wage is below the minimum. Human rights are violated and these workers are exploited for the cheap clothes in our closets.[6] The term for forced, unsafe labour and a fundamental abuse of human rights is **modern slavery**. Although it is very different from transatlantic slavery in the past, the core is similar. People are tricked, coerced, or forced and then exploited for commercial gain. 50 million people live in modern slavery today, and although it is hard to detect, fashion is one of the most labour-demanding industries and it is happening.[17, 18]

### Lack of transparency

Linking to the previous topic is the lack of transparency and inequality in the value chain. Value chains are often quite complex, with many intermediaries and brokers, different means of transportation, and several production processes. Nowadays, it is almost impossible to trace and inspect all the steps in the value chain, which disconnect businesses from different stakeholders. Businesses that prefer to hide certain unsustainable or unfair parts of the value chain benefit from this lack of transparency. This causes profits to be unevenly divided throughout the value chain, and issues are difficult to tackle.

An example of a non-transparent and unsustainable value chain is SHEIN, one of the biggest fast fashion brands of today. SHEIN has nearly doubled its revenue in 2022, reaching a profit of 30 billion dollars.[13] In a sustainable and fair value chain, that 30 billion dollars would be distributed amongst the different stakeholders in the chain, including paying the workers a fair wage, investing in sustainable development, or compensating for pollution. But not at SHEIN. They are accused of stealing designs by copying them from individual creators or small labels,[14] they use mainly cheap synthetic garments that are unsustainable and tear down easily,[16] and they produce clothes in several developing countries, including factories that have people working a 75-hour work week for a low wage.[15] The value chain is too complex and non-transparent to break down, especially for customers of the brand, leading to little to no awareness about it.

## Greenwashing

In recent decades, sustainability is starting to be a trend. Organic products pop up, people try more vegan recipes, and it is trendy to go to the op-shop or to have a reusable bottle. As people start to be more aware of sustainability, companies respond to this by greening their business models. Although this can be a positive development, it also brings a threat. Greenwashing is over representing the extent to which practices are environmentally friendly, sustainable, or ethical. Common ways to greenwash are: making vague and false sustainability statements or claiming sustainable targets without actually achieving them.<sup>[20]</sup> Words such as natural, eco, green, and nature-friendly, but also the colour green is used unrestrained and is confusing consumers. Companies like Shell, H&M, IKEA, Starbucks, Nestle, and many more have been accused of greenwashing in the past and present.<sup>[19]</sup>



This illustration may help you understand how companies use colours and vague words to appear sustainable. You can choose to believe everything they say, but if you take a better look, you can see how they are not as 'green' as they seem. Opposed to how obvious it is in this illustration, it is way more difficult to detect in real life, especially if the organisation is far from transparent. Generally, if the product/deal sounds too good to be true, it is.

## What can you do?

### Buy less fast fashion



As a young adult, it may be tempting to follow all the latest trends and upgrade your wardrobe quite often. Fast fashion is an easy and cheap way to buy new clothes. But, it's important to realise that buying a lot of fast fashion may seem inexpensive, but if you calculate the environmental and social costs, the price is way higher. Besides, when the quality of the materials is bad, this type of fashion requires more replacing and is more expensive on the long-term.

If you want to stop supporting the fast fashion industry, the first step is to lower your consumption. Ask yourself some questions before any purchase: Do I really need this item? Do I already have something similar to this? Am I going to wear this often enough? Am I buying this because it's my style, or because it's a trend? Is the quality good enough to last long? If these questions don't do it for you, determine other questions that you personally find important. If you can't answer 'yes', is it worth your money?

### Buy slow fashion



Consider purchasing a slow fashion item: clothing that is made in a sustainable way. Slow fashion producers pay more attention to the quality of the material and the durability of the piece. These items are meant to be strong and long lasting. By buying quality items, you can slow down the flow in your wardrobe and limit the amount of clothes you need to replace every now and then. Another term for this is investment pieces. Because, you may need to save some money in order to afford slow fashion - they are considered an investment. 'Invest' some money in a good-quality, durable piece, and enjoy that item for years to come. It's mostly a mindset switch and requires the appreciation of a timeless clothing item.

### Head to your local op-shop



If it's difficult for you to buy less cheap clothing, or save up for a slow fashion piece, the op-shop may be something for you. There are adhesive amounts of clothes that are thrown out before they are worn out or broken. Op-shops, that are often connected to a church, charity or community, collect these items and sell them for a low price. Find op-shops [here!](#)

So, lose any prejudice you have about second-hand clothes and give thrown-out clothes a new life. It may take you a bit longer than online shopping, and you may have to visit several shops to find the item you were looking for in your preferred style, colour, and size, but the product range is always changing and it's the easiest and cheapest way to buy clothes with a low environmental impact.

This also counts for other goods, like home décor, kitchenware, books, or accessories. You may need to give them a quick wash or upcycle them in a creative way, but the options are there, and as inexpensive as any student could wish for. And don't forget there's an extensive online second-hand market too. On websites such as [Facebook Marketplace](#) and [Depop](#), you can purchase second-hand items from individual sellers. Facebook Marketplace is good for things that are not usually sold at the op-shop, such as electronics, cars, or phones.

## Wash less



As mentioned before, every wash of synthetic materials leaves microplastics in the sewage system, which eventually end up in the ocean. In addition washing and drying speeds up the process of fading and tearing down. So, a sustainable choice is to wash your clothes less often. This does not mean you can't ever smell fresh or feel clean again. Some clothing doesn't need to be washed after every wear, but just after a sufficient amount of time or a sweaty day. You can also consider switching to a sustainable brand of laundry detergent or let your clothes air dry when possible.

## Donate or sell your clothes



Something you can do to avoid contributing to the fashion waste problem, is donating or selling your clothes instead of disposing of them. So, give old clothes to your siblings or friends, sell them online, or donate them to the op-shop.

Important to note is that donating your old clothes does not 'close the cycle' or justify buying fast fashion. Especially cheap items of bad quality will be hard to sell, will still break easily, and end up in landfill sooner rather than later.

## Have conversations

At the core of the fashion industry problem is the mindset of materialism and overconsumption that lead people to keep purchasing. To change the system, there's a need for a mindset change. Fast fashion needs to be de-normalised, the impacts of this industry need to be visible to the consumer, and sustainable alternatives need to be supported by consumers and governments. I would like to encourage you to have conversations about this topic and help raise awareness about this topic. You can play a role in inspiring others to think about sustainability.

## Check ethical fashion certifications

Certifications are official documents providing proof that something has been done. In the case of fashion, this can prove that an item is recycled, made from organic materials, ethically made, or low-waste, for example. By checking the ethical fashion certifications of an item or brand, you can avoid corporate greenwashers and support the green initiatives that actually want to make a difference. Some examples of ethical fashion certifications are included below.<sup>[7]</sup>



## Good on you

[Good On You](#) aims to simplify sustainable choices by providing fashion brand ratings and collecting the necessary information to make an informed decision. They also have an app for [Android](#) and [Apple](#), which list thousands of clothing, footwear and accessory brands and their rating for their impact on labour, animals and the environment. The brands are rated on one of these five categories: *we avoid, not good enough, it's a start, good, and great*. Information on their rating system and factors can be found on their website and on the app. [\[8\]](#)

## Ethical brands in Australia

Thanks to Good On You (and the internet in general) it is easy to find sustainable and ethical brands online. These are some examples of Australian fashion brands that are certified with some of the mentioned certifications. Some of them use organic materials, others provide 100% carbon-neutral shipping, and others assure an ethical, safe, and fair working environment. If you want to know more, check out their website. They are well worth taking a look at for your next investment piece. [\[8, 9, 10\]](#)

Denim and organic cotton at [Outland Denim](#), sustainable linen and more at [Luna + Sun](#), ethical basics at [Dorsu](#), colourful pieces at [The Anjelms Project](#), 70s-inspired looks at [REMI](#), ethical summer pieces [Rupahaus](#), sustainable sportswear at [DK Active](#), recycled material swimwear at [Elle Evans](#), basics and bedding at [Bhumi](#), vegan bags and accessories at [Sans Beast](#), circular fashion at [A.BCH](#), sleep and loungewear at [Sorella Organics](#), feminine fashion handmade in Perth at [Teagan Jacobs](#), slow fashion must-haves at [Kristin Magrit](#), and vintage recycled one-up pieces at [Oclo](#).

*I just want to acknowledge that having the time and headspace to shift your diet and try out sustainable alternatives can be a privilege. Buying second hand clothes, can be difficult for people whose size falls out of the norm dictated by the beauty and fashion industries. Besides, not everyone can afford sustainable brands and not everyone has the time to go to 10 different op-shops for an item,*

## Challenge yourself

It is quite difficult to change your consumption patterns in a society that is focused on fast fashion. So this won't happen in one day. There's a good chance that the people around you often buy fast fashion and follow every fashion trend. And even if this is not the case, it can definitely be hard to change your patterns. That's why it is important to take small steps if you want behaviour change. The following challenges might help kick-start your journey or initiate further steps.

- Don't buy any new clothes for 1 month.
- Truly ask yourself 'do I really need this' before purchasing an item.
- Buy only second-hand clothes for 1 month.
- Get 30 or more wears out of any purchased clothing item.
- Save up some money and buy a good quality/sustainable investment piece.
- Invite a friend to go op-shopping.
- Buy an item that you intended to buy new, but buy it second-hand.
- Fix/sew a broken clothing item instead of replacing it.
- Ask only-second hand items for your birthday.
- Ask a fashion-brand about their transparency and traceability, can they provide you with answers?

**Some tips** to help achieve the sustainability challenges: use [the sustainability map](#) to find op-shops in your area, try to do the challenges with a buddy, don't be too harsh on yourself... but also try to be critical sometimes, calculate how much money you've saved with second-hand purchases and reward yourself.

Trying these challenges, whether you succeed or not, tells you something about your consumption pattern. So, at the end of a challenge you can reflect by asking yourself some questions. How did you feel about this challenge? What did I find difficult? What have I learned about my consumption behaviour? Could I do this again another time?

# Agriculture and food retail

**Keywords:** industrialisation, production processes, crop modification, fresh water, food waste, animal welfare, nature conservation, human rights, community gardens, certifications.

## Developments

The process of food production, everything that happens before a product ends up on supermarket shelves, has become less and less visible over the last decades. In the past, people went to a bakery or mill to buy bread, where they could see the baker grind the wheat, knead the dough and smell the fresh bread coming from the ovens. People went to a farm or small market to buy vegetables, where the product range changed with the seasons, where the soil stuck to the fresh produce, and where vegetables had different shapes and colours. People went to a butcher to buy meat, where they could still see the blood on the butcher's apron and hands and where a strong stomach was helpful. These three scenarios are examples of how the consumer were reminded of what a production process looks like.

But times have changed. As industrialisation, plant science, and transport innovation improved, the focus shifted from local production to large-scale production for export on a highly competitive international market. It also provided the opportunity for western investors to upscale production, apply crop modification techniques, and drive down costs by producing in low-wage countries. Now, the majority of consumers purchase their food in big supermarket chains, that have increased efficiency and stabilised their produce availability throughout the years. In a supermarket everything is in one place and the consumer doesn't have to think about the production process of the food in their basket. The rise of supermarkets maximised convenience, extended shelf life, and provided year-round availability and a large range of different brands and prices.

## The issues

### Land use

Land use is an important factor for assessing the sustainability of the agriculture sector, as extensive use of land has a big impact on ecosystems and wildlife habitat. Currently, half of the world's inhabitable land is used for agricultural production. 77% of that land is used for livestock (meat and dairy production) and the rest is used for other produce (crops). The upscaling of agricultural land has had the biggest impact on deforestation and land clearing, forming a threat to biodiversity. The continuous population growth will demand even more land in the future, which forms a threat to existing landscapes.[5]

### Fresh water use

With the majority of the world's surface covered in water, you wouldn't think water shortages would form a significant environmental issue. However, 99,5% of global water sources is either saltwater, ice, or too polluted for human consumption or agricultural or industrial use.[4] Still, feeding the world requires large amounts of freshwater for irrigation, pesticide and fertilizer application, maintaining livestock, crop cooling, and frost control.[3] In fact, agricultural production accounts for 70% of global freshwater use, causing conflicts in areas with limited availability.[2] In a world where population and temperatures are ever-rising, this is causing significant shortages and environmental pressure.

**Agricultural production accounts for 70% of global freshwater use. [2]**

### Soil quality

Soil quality, the level of nutrients in the earth, depends on a lot of factors, including soil type, location, time since last use, rainfall, and animal impact.[7] Good soil is crucial to a good harvest. However, with high demand for food produce, practices such as deforestation, clearing, overgrazing, and the use of chemical pesticides and fertilizers are causing soil degradation: loss of natural fertility of soil. When agricultural practices are done on a large-scale, at low-cost, in an unsustainable way, the land is overused and exhausted.[8]

### Animal cruelty

Livestock is another word for large groups in animals that are kept for the production of meat, eggs, or dairy products. There's a difference between a small-scale farmer with five cows in his field and a large industrial 'factory farm' that keeps five hundred cows in filthy stables in bad circumstances, a very significant difference. In large-scale industrial farms, animals have become products instead of living creatures. Producers are minimising costs at the expenses of the animals, which is why they live in a small space, can't go outside, aren't treated appropriately for diseases, and can't do anything that an animal would want to do.

If it wasn't for antibiotics, keeping animals alive in these circumstances, this business model wouldn't hold. But it does. In addition to this, many farming animals have been genetically manipulated to produce more meat, eggs, or dairy, causing them to grow unnaturally and become sick or cripple easily.[\[15\]](#) *I don't want to go into the details of the horrible slaughtering methods, because honestly, I am shivering just reading about it. But if you claim to love animals, look into animal cruelty in the livestock sector and rethink your love for animals.*

### **Climate change**

Another issue with the agriculture industry, but mainly in livestock practices, is its contribution to climate change. Although food processing factories require energy and emit greenhouse-gases, livestock is having an even bigger impact. Cattle emits methane through discharge and farts. Methane is a very heavy greenhouse gas that is about 30 times more potent than carbon dioxide. With the livestock sector expanding, livestock air pollution accounts for 14.5% of global emissions, contributing to global warming and climate change.[\[16\]](#)

In addition, the effects of climate change also have an impact on the industry. Agriculture is sensitive to weather and climate. A changing climate (including temperature and rainfall) causes changes in productivity and harvest. Besides, it increases the risks of wildfires, droughts, and natural disasters that have tremendous effects of farmland.[\[18\]](#)

The effects of climate change affect farmers at the bottom of the value chain harshly. Sure, you may need to pay \$1 extra for a product in times of drought or scarcity, but for the agricultural workers, whose livelihood depend on agriculture or livestock, the livelihood impact is way bigger. Besides, workers often don't get paid enough to build resilience for bad harvest or other setbacks.

### **Inequality**

The developments in agriculture and food retail have brought the average consumer in an urbanised, developed area into a luxurious position. And although the upscaling of agriculture was initially a way to stop malnutrition, nearly 10% of the world's populations is still affected by hunger, malnutrition, and food insecurity.[\[1\]](#) The problem with poverty and hunger is no longer the lack of food, it's the unequal distribution of it. Cereal production has tripled since 1960s and some experts argue that the current global cereal production is enough to erase hunger. But, the increasing demand for meat and dairy products require a large input of cereals as livestock feed. 100kcal of cereal that could have fed people, is turned into 3-12kcal of meat that feeds people that already have money and access to food. [\[8, 9, 10\]](#)

**The problem with hunger is no longer the lack of food, it's the unequal distribution of it. [8]**

## Food waste

On top of the unequal distribution of the global food produce, roughly a third of the world's food is wasted. The wastage of food does not only happen when you throw something in the bin, but at different stages of the value chain. In the production stage, food is lost due to pests and diseases. In the harvesting, handling, processing, transportation and storage stages, food is lost due to inefficient methods. In the consumption stage, 35% of the wasted food is perfectly edible food thrown out by supermarkets, shops or households.<sup>[11]</sup> Household food waste ranges from uneaten leftovers to spoiled products. Retail food waste is caused by the over-efficiency of supermarkets. The consistent flow of fresh produce leads to over-ordering and a surplus in the supermarket shelves. A lot of food goes to waste because of this.<sup>[12]</sup>

## Plastic pollution

Nearly everything you find in the supermarket is packaged in single-use plastic, a modern convenience. Plastic is light and easy in use. However, this comes with a major environmental impact. Only 16% of soft plastic waste is recyclable, the rest is going to landfill or end up in the ocean.<sup>[17]</sup> Plastics are made from fossil fuel based chemicals, which is why the production already has a carbon footprint that is linked to the fossil fuel industry. Important to mention is that a portion of single-use plastic use is important or even crucial to society, such as medical gloves, but in the end, most of it can be replaced with a sustainable alternative. Plastic packaging represents our preference for convenience over durability.<sup>[20]</sup>

We produce 300 million tons of plastic waste each year, a lot of which ends up in oceans and waterways, forming a threat to wildlife and natural ecosystems. Plastics don't easily break down either. They slowly turn into smaller and smaller pieces until they're microplastics. This is making it hard to calculate the amount of plastic trash in the ocean, but the estimation is between 86 and 239 billion kilos of plastic globally, with only 1% of this visible on the surface. To help you visualise the scale of this pollution problem; in the least dramatic situation (86 billion kilos) this would still be enough to cover the whole of Australia minus lutruwita, Tasmania. But most likely, the situation is worse.<sup>[21]</sup>

## What can you do?

### Change your diet if you can

There's a tool on [this website](#) that calculates the carbon footprint, water use, and land use of different commodities. This can help you understand which products are and aren't sustainable choices for the environment. For example, meat and dairy products are generally known to be one of the most unsustainable products you can have on your plate. A lot of land, water, and animal feed is needed to produce this. So, a good start is to reduce your meat and dairy consumption. This doesn't mean you can never have a barbie again. Cutting your consumption back step by step is a good start. Alternatives for meat and dairy products are starting to be more available and affordable, also in big supermarket chains. So give it a try! If you want to take a step further you can try cutting all animal products from your diet and join a worldwide plant-based movement. There's a lot of information about vegetarian and vegan diets that you can find online.



### Check food certifications

Similar to the ones in the fashion industry, agricultural certifications are official documents providing proof that something has been done. In the case of agriculture, this can prove that a product is made without chemical pesticides or fertilizers, without harming the environment, or that the agricultural workers have received a fair pay. By looking for certifications before purchasing a product, you can avoid corporate greenwashers and support the sustainable brands that actually want to make a difference. Some examples of food certifications are included below.<sup>[19]</sup>



Let's zoom in to one certification: **RSPO**. Conventional palm oil is increasingly used in packaged products: toothpaste, shampoo, soap, margarine, peanut butter, chocolate, and many more. It has many beneficial characteristics that help improve these products. It holds colour, brings smooth-, shiny-, and creaminess, and is known to remove oil and dirt from hair and skin. The increasing demand of palm oil forms an issue. The oil is harvested from oil palm trees, growing in biodiverse-rich rainforests, and the production and harvesting of this oil threatens the environment and important habitats. The RSPO certification ensures that the palm oil sourced in a certain product is sustainable and produced in a socially and environmentally responsible way.<sup>[13]</sup>

## Avoid food waste



A practical sustainability tip that can also save you some money, is avoiding food waste. When food decomposes in landfill, methane is released (yes, the same greenhouse gas as the cattle farts). That, and the fact that people can throw out hundreds of dollars' worth of food a year, explains why it is important to minimise your food waste and save some money while you're at it.

So, look in your fridge and pantry before shopping, so you know exactly what you do and don't need to buy. Eat something before you go grocery stopping, this decreases the chances of buying impulsive and unnecessary purchases. Learn how to store your fresh food. There are entire theories on how you can best store your food to maintain freshness. Be mindful of what you throw out, ask yourself why it has come to this point, or what you could have done differently to prevent the spoil. And lastly, try composting your food scraps, this will prevent them from decomposing in landfill and instead turn into nutrient-rich soil.<sup>[14]</sup>

## Avoid (plastic) packaging



As mentioned in this chapter, plastic pollution is one of the biggest issues in the food retail sector. Circularity and reuse is the solution to this problem. There's a worldwide movement of people who are moving away from (plastic) packaging and who live a low-waste or no-waste lifestyle. Avoiding (plastic) packaging entails: refusing single-use plastic, repurposing packaging like glass bottles, and bringing your own grocery bags and containers to the grocery store. Many big supermarket chains sell loose fruits, vegetables, and nuts already. Other products can be found in low-waste or bulk grocery stores. There are some of these stores around Perth, so check out [the sustainability map](#). If you're smart with it, you can even save some money when you buy in bulk.

## Use reusables



Using reusables is a good way of reducing your waste and saving money. A reusable bottle, tote bag, coffee cup, straw and cutlery set can last for years and will replace many single-use plastic items. There's a positive development of places like coffee shops and festivals where reusables are increasingly accepted.

## Separate your waste

Many councils in Boorloo, Perth, accept recyclables like glass, carton, tins, and many more. You can help your council by separating your waste the right way. Did you know you should rinse glass and plastic packaging before putting them in the recycling bin? Specific information about waste separation in your local area can be found on your council's website.

*I just want to acknowledge that having the time and headspace to shift your diet and try out sustainable alternatives can be a privilege. Behaviour change is not easy. Factors like allergies, social pressure, and traditions can make it very complicated. People's financial situation also plays a big role.*

## Challenge yourself

It is quite difficult to change your consumption patterns, so this won't happen in one day. There's a good chance that the people around you often eat meat and dairy product, and that they don't pay attention to the sustainability of food. And even if this is not the case, it can definitely be hard to change your patterns. That's why it is important to take small steps if you want behaviour change. The following challenges might help you to take the first or further steps.

- Stop eating meat for a month
- Try a vegan recipe with a relative or friend
- Buy an organic product in the supermarket
- Shop mindfully, buy only what you need
- Check for certifications while doing groceries
- Purchase a compost bin and start composting
- Buy fresh produce at a farmers market
- Bring your own bags and containers to the grocery store
- Go shopping in a zero-waste grocery store

**Some tips** to help achieve the sustainability challenges: use [the sustainability map](#) and find sustainable hotspots in your area, try to do the challenges with a buddy, don't be too harsh on yourself... but also try to be critical sometimes, calculate how much money you've saved with some of the challenges, and reward yourself.

Trying these challenges, whether you succeed or not, tells you something about your consumption pattern. So, at the end of a challenge you can reflect by asking yourself some questions. How did I feel about this challenge? What did I find difficult? What have I learned about my consumption behaviour? Could I do this again another time?

# Transport, technology, and energy

**Keywords:** Innovation, urbanisation rates, globalisation, commercial business, international trade, social networks, computers, fossil fuels, green energy, freight, tourism, construction, nature and biodiversity.

## Developments

The **transportation** developments from the 18th century onwards have changed street views significantly. Although horses, wooden vehicles and simple boats were common means of travel for tens of centuries already, walking used to be the most common and accessible way of moving about. But after the invention of bicycles, trams, trains, steamships, and cars in the 19th century, people could start to enjoy the luxury of increased mobility.<sup>[1]</sup> The use of strong materials like iron and efficient fossil fuels like diesel, enhanced the further development of these new innovations.

With transport developments came the construction of **infrastructure**: roads, railways, and settlements. In the last centuries, urbanisation increased rapidly everywhere in the world. In 1800 less than 3% of the global population was living in urban areas, in 1960 this was 34% and in 2021 this was 56%. In Australia, **urbanisation** rates are even higher with 86% in 2021.<sup>[2]</sup> This trend of urbanisation is a direct consequence of innovations in agricultural and transportation, enabling farmers to increase yields and transport produce to feed urban populations. This allowed people in urban areas to focus on other livelihood activities, like construction, art, science, hospitality, politics, or commerce.<sup>[3]</sup>

Over time, commercial businesses and economic growth became increasingly important in urban areas. The new and improved means of transport did not only allow people to travel to different countries and continents, but also enhanced a global trade network.<sup>[4]</sup> **Globalisation** is the process by which the world is becoming increasingly interconnected. The biggest companies of this time are no longer national firms but multinational giants with multiple branches around the world.<sup>[5]</sup> Fossil fuel powered container ships, aircrafts, trains and trucks transported goods all around the world, leading global trade to twenty-seven-fold since 1950.<sup>[10]</sup>

Globalisation did not only enhance global trade, but it also allowed for the exchange of knowledge and skills on a global scale, leading to increased **technological development**. Since the start of the 21st century cell phone and internet use has exhilarated, and the technological sector developed smart computers and communication networks. This benefitted healthcare, media, public transport, innovations, cultural exchange, and social connections.<sup>[6]</sup>

## Everyday use

Nowadays, we can enjoy the positive outcomes that the transport and technology sector are bringing us. The world is more connected than ever. Many things that people love about life are enabled by transport, technology and energy. These are some examples. We love to be connected with each other online, on multiple social media platforms. It is a way of making friends and familiarising ourselves with different cultures and lifestyles. But it also has become a source of information and opinions for young adults. We love to live in cities, where life is exciting, full of opportunities, things to do, places to explore, people to talk to, cafes to eat at, and entertainment to enjoy. We love food and the variety of it, not having to grow all of our food ourselves, but being able to buy fresh produce wherever we go and to try dishes from all over the world. We love to travel. Whether it is to see family, enjoy nature, explore a new culture, or for any other reason, we drive across the country and fly across the globe. We love having a car. In today's society it is very common, or even necessary, to own a car. Owning a vehicle gives us freedom and flexibility. [7, 8]

## The issues

### Fossil fuels

As long as energy is provided to society by coal, gas, and nuclear power, the use of electronics, vehicles, machinery, etc. will continue to have a big impact on the environment. The energy sector remains to be the most polluting one of all. Mining for fossil fuels causes deforestation, permanent alteration of land, loss of animal habitat, waste, water pollution, and air pollution.<sup>[11]</sup>

Sustainable alternatives for fossil fuels are slowly introduced to society. Sustainable alternatives are healthy, safe, long-lasting and self-replenishing energy sources, like sun, wind, water, and geothermal power.<sup>[13]</sup> As our use of non-renewable energy resources is only increasing, the supply is rapidly declining. Oil is set to run out in 2052, gas in 2060, and coal in 2090. A green energy shift is necessary to reduce our dependence on these resources and ensure a durable future.<sup>[14]</sup>

### Unsustainable innovations

Although the technology sector is actively contributing to climate solutions and sustainable innovations, it generates a lot of indirect emissions. Most of the environmental impact of major industries is indirectly caused by unsustainable technological innovations. These fit in the concept of a linear economy, where products are made in the most efficient and profitable way without considering the environment or thinking of the product cycle after use.

**A green energy shift is necessary to reduce our dependence on limited resources and ensure a durable future. <sup>[14]</sup>**

An example of an unsustainable innovation is: the smartphone. Smart phones are built with at least 16 or 17 rare minerals like gold, cobalt or lithium that are mined in dangerous places and cause environmental destruction. But regardless of that, most phones aren't durable, repairable, or recyclable. In fact, smartphone providers encourage users to replace their phone regularly to keep up with new software and gadgets.<sup>[12]</sup> This type of production is also known as planned obsolescence.

### Freight transport pollution

The previous chapters touched upon the pollution that production processes in major industries cause. But aside from that, the transportation of goods (freight) is adding up to that. The amount of cargo ships, planes, trains and trucks that transport goods accounts for 40% of all transport emissions and 8% of global emissions. The rise of e-commerce, online shopping, worldwide delivery services and extremely cheap web shops have boosted freight transport even more.<sup>[15]</sup>

### Daily life transport and tourism

Especially in a long-spread city as Boorloo, Perth, where public transport is considered to be inefficient by many people, the car culture is integrated strongly into society.<sup>[9]</sup>

In retrospect to heavy road trains, planes and cargo ships, the greenhouse gases that your particular vehicle emits are incremental. However, remember the 40% contribution of freight transport to transport emissions? The total emissions of passenger cars cause another 40%.[\[16\]](#) While your individual drives to work, the grocery store, the beach, and the occasional road trip, may not pollute as much as a plane shipping goods from Asia to Australia, the pollution of all the 1.5 billion cars on this planet really adds up. The popularity of Sport Utility Vehicles has also increased over the last decades, and climate campaigners are increasingly concerned about it. SUVs are larger and heavier than other vehicle cars and therefore require larger batteries and 20% more fuel.[\[18\]](#)

For long distances, flying is more fuel-efficient than driving if you calculate the emissions per traveller per kilometre. When air travel was first introduced to society it was quite expensive, so people had to wisely spend their money on necessary and worthwhile journeys. Without denying that nowadays air travel is still a luxurious way of transportation, it has surely become much more accessible and affordable to the middle-class, encouraging tourism, short-distance journeys, and habits of regular travel. This normalisation was not a sustainable development, as the aviation industry currently accounts for 2.5% of the global CO2 emissions. And although travel has decreased for a while during Covid, it was reembraced as soon as restrictions were over.[\[19, 20\]](#)

### **Land clearing and construction**

Linking back to a subject mentioned before, urbanisation has caused and is continuously causing changes to landscapes. In all urban areas around the world, including Boorloo, Perth, forests and bushland have been cleared for the construction of housing, industry and infrastructure. The CO2 emissions from materials, heating, cooling and lighting of buildings and infrastructure is 40% of the global emissions.[\[21\]](#) Although urban areas only account for 1% of the earth's land, the water and air pollution that cities cause, disturb the natural ecosystems surrounding it. An example of endangered species is the black cockatoo. These birds are threatened to go extinct because of habitat fragmentation, removal of nest hollows, loss of native food sources and illegal poaching.[\[23\]](#) As mentioned in the previous chapter, the expansion of urbanisation together with rapid population growth increases the need of food and causes a lot of clearing and deforestation for farmer land. This also forms the biggest cause of land clearing in Australia, the world leader in deforestation and wiping out animal habitat. Although land clearing is an even bigger issue in Queensland and New South Wales, Western Australia is third on the list. Between 1829 and now, a significant amount of the state's forests and bushland has been cleared and many of the leftover patches of nature are awaiting approval for further clearing.[\[22, 24\]](#)

**The expansion of urbanisation (...) causes a lot of clearing and deforestation. [\[22, 24\]](#)**

## What can you do?

### Eat local produce

Agricultural produce often has to be transported from far away, which is contributing to CO2 emissions. You can check out local orchards and farmer markets on [the sustainability map \[27\]](#) or check out [Buy West Eat Best](#). By buying local produce, you don't only support local small businesses, but also avoid contributing to transport emissions. Australia is lucky to have a climate in which many crops can grow, such as oats, oil seeds, potatoes, maize and a wide variety of fruits and vegetables. So, if possible, try to buy the produce that has travelled the least number of kilometres.

### Eat seasonal produce

Another way to avoid the air miles that commodities from all over the world have travelled, you can eat seasonal food. Enjoy WA avocados in winter and spring, and while waiting for the next seasonal batch, enjoy WA grapes, melons, strawberries and mangoes. You can check out the [seasonal calendar of Western Australia](#) and see which fruits and veggies are in season.

### Think twice about flying



The Scandinavian climate action movement introduced a term called *flygskam*: feeling ashamed of flying because of its environmental impact. However, this term is quite negative and accuses individuals of being the cause of the climate crisis. Besides, air travel is often the only way to get to visit friends or family, experience another culture, or – in the case of Australia - it's the only fast way to get to another state. If you want to reduce your carbon footprint, you could do multiple things: decide to never fly again, try alternative transport, or reduce your number of flights to a set yearly maximum. Flying less often can also save you a lot of money.

Besides, you can make sure you travel responsibly and mindfully. Pack reusable items, take a direct flight, fly coach, click the box for the CO2 compensation, look for sustainable accommodations and activities, support local economies, and don't go for a weekend but make the most of your holiday.

### Green transport in daily life



Greening your everyday transport starts with buying a second-hand, fuel-efficient or electric car. The 4WD culture in Perth is quite strong, but you can save a lot of gas money by buying a smaller vehicle car. After all, do you really need a SUV for your drives in this well paved city? If you want to do more, try reducing your car use. You could try to replace short drives with a walk, cycle or bus ride, combine several errands in a similar area, and drive during off peak hours to avoid congestion. Carpooling with friends and family is also a way to help reduce number of vehicles on the road.

### Ecosia

I have planted more than 25 trees during the desk research for this handbook, without breaking a sweat! How? Only by switching to another search engine. Although Google has been using carbon-neutral services since 2017, [Ecosia](#) is not only producing enough solar energy to power all their searches with renewables, it produces more than twice as much.

And where google is avoiding taxes, Ecosia is paying its fair share of taxes while also investing its profits in removing CO2 emissions from the air and planting trees.[25] Switching your standard search engine to Ecosia is a quick and easy way to contribute to the movement away from fossil fuels and towards sustainability. Download Ecosia now for [android](#), [apple](#), and [chrome](#).

### Green your home



To 'compensate' for the cleared land and lost nature and biodiversity that urbanisation has caused, try to green your home. Taking it *literally* means, planting native trees, providing food and shelter for birds and small animals, and plants in your garden or growing your own food. Even in a small apartment you can grow micro greens or fill the space with plants. Take a look at [Rewild Perth](#) for more information. Taking it *figuratively*, you can try to make your home more sustainable by switching to a green energy provider, reducing water and electricity use, separating waste, ensuring your home is insulated, or using smart plugs and LED light bulbs.

### Sustainable influencers

While electronic devices and social media will continue to be a big part of our current lifestyle, why don't we try to use it in our benefit? Consider greening your timeline. There are plenty of influencers out there that follow every trend, do elaborate clothing hauls of fast fashion brands, or buy cheap materialistic stuff from online web shops, while encouraging their followers to do the same. It may be refreshing to see people on your timeline that do it a little differently. People that buy, style, and upcycle second-hand clothing, take you on their zero-waste journey or try vegan recipes. Refresh your feed and get inspired. *If I may recommend some people that come on my Instagram feed:* [@impactforgood](#), [@relauren](#), [@acteevism](#), [@robjgreenfield](#) and [@fitgreenmind](#) are super nice people that share tips and tricks and inspire loads of people. Some Australia-based influencers are [@treasingmyownpath](#), [@danni\\_duncan](#), [@connieandluna](#), [@yemagz](#), and [@thefashionadvocate](#). Click [here](#), [here](#) or [here](#) for some more inspiration.

### Community gardening

A way for people in urban areas to stay in connection with nature and learn more about how food can be produced locally is being involved in a community garden. A community garden is a unused patch of land in urban areas that is developed into a shared food garden and run by a community. Everyone chips in for seeds, equipment, and supplies, in exchange for enjoying fresh fruits, veggies and flowers grown in the garden. It can bring great benefits to a neighbourhood; a community garden brings green into grey areas, attracts bees, birds and butterflies, builds community, promotes local and sustainable food production, cleans the polluted city air, enhances skill development, and feeds people. Check [the sustainability map](#) to find a community gardens in your area.[26]

*I just want to acknowledge that having the time, headspace and money to make any of these sustainable choices can be a privilege.*

## Challenge yourself

It is quite difficult to change the ways in which you use transportation, technology and energy, so this won't happen in one day. There's a good chance that the people around you have four-wheel drives, work in the energy sector, order stuff online, and take a regular flight. And even if this is not the case, it can still be hard to change your patterns. That's why it is important to take small steps if you want behaviour change. The following challenges might help you to take the first or further steps.

- Take public transport instead of your car
- Plant a native tree or buy a native plant
- Sign a petition in support of renewable energy and a fossil-free future
- Green your social media timeline, unfollow some influencers who have no regard for their environmental impact or who encourage you to make unsustainable choice, instead start following some green influencers that inspire you.
- Have a conversation with someone about the environmental effects of fossil-fuels
- Instead of buying something that you intended to order online, buy something that is made locally
- Visit or join a community garden
- Switch to the Ecosia search engine

**Some tips** to help achieve the sustainability challenges: use [the sustainability map](#) and find all the community gardens in your area, try to do the challenges with a buddy, don't be too harsh on yourself... but also try to be critical sometimes, calculate how much money you've saved with some of the challenges, and reward yourself.

Trying these challenges, whether you succeed or not, tells you something about your consumption pattern. So, at the end of a challenge you can reflect by asking yourself some questions: How did I feel about this challenge? What did I find difficult? What have I learned about my consumption behaviour? Could I do this again another time?

# Green careers

**Keywords:** career path, occupation, values, mining, taxes, investments, greenwashing, future, green economy, environmental NGOs, green employer.

Now that you know more about the different global industries and developments that are impacting our natural environment, let's talk about work. As a young adult, you are most likely trying to figure out what you want to do with your life. Aside from managing social relationships, sports, lifestyle, housing, etc., you're expected to choose your career path and take steps for professional development. Once you start a full-time job, this means you will spend approximately 2,080 hours a year in that work field. That's 90,000 hours in a lifetime, **one-third of your life**. Obviously, in some situations, you have to take any job that you can get, in order to pay the bills. But, if you zoom out, your occupation is not only about earning money, it reflects how you want to spend your valuable time, and what your values are. So, if you have the luxury of choosing between several career paths, which one are you choosing? This handbook has presented many options for sustainability in daily life. However, in terms of time input and impact, choosing a green career is a big thing to consider. This chapter will help you understand what green careers are and why they're such a big part of our future.

## The mining sector

Let's address the elephant in the room: Western Australia's mining industry. One glance at Perth's skyline provides a good look at what WA's economy is built on. The tallest three buildings on the skyline are home to Rio Tinto, BHP, and South32. And many other oil, gas, and natural resource companies are tenants of the skyline buildings. Western Australia has an extraordinary supply of minerals and petroleum. Evidently, big investors were attracted to this state and the natural resource sector started to grow, extracting a variety of natural resources including iron ore, platinum, titanium, bauxite, natural gas, gold, diamonds, and more. Over time, Boorloo, Perth has developed itself as the resources and energy capital of the Indo-Pacific region.<sup>[1]</sup>

The natural resource sector creates a lot of jobs for people in Western Australia. The jobs created by mining account for the highest share of income in Western Australia: 17.9%.<sup>[4]</sup> Not all of these people are getting their hands dirty; every job on the mine site is supported by five indirect jobs in Perth.<sup>[6]</sup>

Thanks to the high revenue of the natural resource sector, mining generates millions of dollars in taxes, which can be invested in urban development such as construction, infrastructure, schools, and hospitals. The sector is also contributing to community activities and scholarships across the country.[7] In interviews with environmental NGOs, these social investments are known as "buying a social licence" - the concept that the negative impacts they have are negated by the "good" they are doing. Also referred to as *sports-washing* and *arts-washing*, a creative twist on the concept of *greenwashing*. Resource businesses invest in societal development to create a support base for their exploration projects and distract people from unsustainable practices.[8] However, the benefits of the mining sector are far from being shared equally. The cost of living in Perth has been pushed up dramatically by the rate of development. Food prices and rent are increasing and people on income support are struggling to make ends meet.[5]

Aside from the fact that mining has a huge impact on nature and wildlife, as explained in the previous chapter, the sector is also unsustainable for another reason. Perth has certainly benefitted from this growth, but growth does not last forever. If humanity continues to mine natural resources at the pace that we are doing now, we will run out sooner rather than later. Specifically, iron-ore, the metal that accounts for 87% of the natural resources extracted in Western Australia[7] may run out in 50 years.[9] Although you may be dreaming of your retirement around that time, it is important for Western Australia's nature and economy to be less reliant on the mining sector.

## Green economy

Today's society is undeniably changing. Companies are increasingly held responsible for the impacts of their business models and people's values are changing. Whether it is social justice or environmental consideration, whether the motivation is a purely an ethical one or financial benefit, sustainability topics are on the rise. With this, more and more green jobs are being developed, and a touch of green is integrated into every occupation or work field.[2]

There's no agreed definition of 'green' because the interpretation of the word will differ per person and evolve over time. Generally, green values are meant to reflect an approach to life that centres on awareness of our impact on the planet and its people. So, applied to different parts of your life, including consumption, home, family, community, and work.[2] Still, there's nuance in the term 'green'. Nothing is 100% green, some things might be light green, others dark green. In the end, it's about distinguishing new, sustainable developments from the current *business as usual*. Green economies refer to industries that produce green products, use clean, renewable processes, or offer more sustainable services in an effort to move us to a new standard.[3]

## Green careers

The first thing to mention about 'green careers' is that this does not only refer to the obvious environmental jobs on the market like climate scientists, environmental consultants, or green engineers. Environmental NGOs are the best place to go for a job in conservation, natural restoration, climate change action, biodiversity protection, etc. These organisations welcome people from many different backgrounds like graphic design, communication, finance and organising. However, if that's not your thing, don't write off green jobs in total.

Nowadays, green jobs are available in every occupation. Let's look at some examples of green careers: *designing* and *constructing* energy-neutral, insulated houses, creating local *tourism*, *educating* youth about a sustainable future, *regulating* corporations to stop them from destroying the planet, *legislating* environmental rights, working in the renewable industry revolution, *managing* a sustainable business, creating sustainable *innovations*. raising awareness about sustainability in the *media*, *farming* food in a sustainable way, connecting *health* issues to the climate crisis, moving a *business* from a profit to a socio-environmental focus, *investing* in sustainable alternatives. *I could go on and on.*<sup>[3]</sup>

## Any job can be green(er)

There are a lot of jobs that don't necessarily have a link to sustainability but are incredibly important to society. Still, anyone in any line of work can contribute to the sustainability movement and encourage their employer to be greener. Can your organisation switch to renewable energy, recycled paper, or reusable coffee cups? Can it generate greener jobs? Can it make logistical changes that would be more sustainable? Can it reduce air and water pollution? Can it support equality and improve working circumstances? Can it increase transparency toward its clients or customers? Can it do more to support your and your colleagues' mental health? Think about these things and don't be afraid to ask your employer about their strategies to move along with the environmental movement.

**"Your occupation is not only about earning money, it reflects how you want to spend your valuable time."**

# The link

Even if you can't wait to start making more sustainable choices in your daily life, don't put this handbook away just yet! Now that you've read sustainability topics and applied some practical tips and challenges, the second part of this handbook is going to tell you more about environmental volunteering. If this sounds like a step-too-far, a far-from-your-bed-show or something that sounds boring, time-consuming, or pointless, this part is going to prove the opposite to you.

Let's first clear up why environmental sustainability in daily life and environmental volunteering are so interlinked. Why are these two topics the focus of this handbook? Well, as you might remember from the background information, given at the start of the handbook, there are different approaches to sustainability; *the societal, industrial and political approach*. The focus of the first part of the handbook was on a grassroot societal movement of people that demand more sustainable development and 'vote' for sustainable alternatives with their individual consumer power. This societal approach to sustainability is very important, it unites and inspires people and shows actors in policy and industry that people care about sustainability. According to my survey research, young adults tend to make more sustainable choices in daily life if other people around them also do so.<sup>[1]</sup> However, individual sustainable choices are unlikely to have immediate consequences or shift patterns right off the bat. This does not mean it is pointless or unimpactful, just that it's a slow movement, that needs time and collective effort.

So while society is slowly making changes towards sustainability, you may feel like you want to do something more impactful for the ecosystems and wildlife that are currently under threat. The majority of young adults that participated in the survey hold governments and big polluting corporations responsible for environmental sustainability. They also claimed that if governments and corporations put more focus on sustainability, that would encourage them to do so too.<sup>[1]</sup> The question is: is our consumer power enough to shift the bigger, structural issues that are contributing to degradation of the planet? This is where environmental volunteering with an NGO comes into the picture.



**Part 2:**

**Environmental volunteering**



# Introduction

## Non-governmental organisations

An NGO is a non-governmental organisation, operating independently of any government. Where profit-oriented organisations often have economic motives, NGOs have social or ethical motives, and address political, social and environmental issues in society. An example of an Australian environmental NGO is the Wilderness Society, they work in most states to protect, promote and restore ecosystems and natural processes. Non-governmental organisations have a holistic approach and demand large-scale change, by connecting researchers, activists, campaigners, and communities and joining forces to achieve a big-scale objective. Actors in policy and industry have a larger influence sphere and power to make a difference, more so than any individual consumer on their own. That's why NGOs often target these bigger societal bodies and pressure them to make sustainable and ethical choices. The work that NGOs are doing is not commonly funded by the government, donations or grants, which is why fundraising is an important part of an NGO. With this money, the organisation hires staff and implement their projects and campaigns that help achieve their mission.[2]

## Purpose

The majority of environmental NGOs in Boorloo, Perth see a pattern within their community. The volunteer group consists mostly of an older demographic.[2] The reasons young adults are less likely to become environmental volunteers, is not only the lack of time or headspace, but also the fact that they don't know what type of volunteering would suit them and they don't know where to start.[1] This can form a boundary for young adults. This part of the handbook aims to take away that boundary and provide you with everything you need to know about environmental volunteering, including 10 one-pagers of the major environmental NGOs in Perth. They focus on similar subjects like climate change, environmental conservation, nature restoration, protection of biodiversity and threatened species. But they also differ in some ways and have different types of volunteering to offer. The one-pagers explain everything about their mission, strategy and community involvement strategies and how you can get involved.

# Community engagement

## Polarisation in society

With growing knowledge of the causes and effects of climate change, comes growing awareness. Climate activists are on the rise, protesting and lobbying for climate action and improved climate laws. Climate sceptics, on the other hand, are pessimistic or in denial about the climate crisis and give climate action bottom priority. Flora and fauna species obviously can't stand up for themselves, so there's a need for people to be their voice, to research climate developments, and lobby for collective action. If it wasn't for environmental NGOs and climate activists in the past and present, nature would be even more disrupted and destroyed than it already is today.[1] The discussion around climate change seems to polarise society, which forms a dangerous development. Polarisation is the division into two contrasting groups having opposite opinions or beliefs. It is caused by extreme ideologies that repel the opposite group as well as the 'neutral' group in the middle. It hinders our personal development, drives social division and hate, and causes political struggle in solving big complex issues.[2]

## Community engagement

There's something all environmental NGOs that support this handbook have in common. All of them engage the communities in which they work in, because they strongly believe decision-makers are responsible to consider the different perspectives of groups in society. Community engagement is both a process and an outcome. Although there's no commonly applied strategy for community engagement, there are some recurring ways of involving people like you. Some examples are: asking people to sign up for updates, hosting community events and information sessions, making documentaries, and providing volunteer opportunities. The community engagement triangle displays how community engagement strategies can serve a mix of objectives, like influence decision-making, built relationships, and built capacity. It also highlights the difference between horizontal and vertical community engagement. Horizontal community engagement focuses on connecting and empowering people in their own community and encouraging them to play an active role in community development. Vertical community engagement, however, is about connecting communities with decision-makers like governments, local councils, businesses, schools, etc.[4]



# Volunteering

The non-profit vision of some NGOs means they have limited financial capital. For many NGOs worldwide this means volunteers are crucial to the success of their work. Environmental volunteering is volunteer work that contributes to improving our natural environment. It commonly suits people who are passionate about nature and biodiversity. This can be practical work (planting trees, cleaning beaches, collecting data, etc.), organisational work (providing new ideas, assisting in campaigns, managing social media, etc.), or community-based work (attending events, signing petitions, contacting your local member of parliament, etc.).<sup>[1]</sup>

The benefits of volunteering are not only for the NGO. It helps volunteers in feeling a sense of achievement and purpose, belonging to a community, improving self-esteem and confidence, learning new skills and developing talents, combating stress, loneliness, social isolation, and meeting new people with similar values and passions.<sup>[5]</sup> Organisations regularly point out the importance of particularly young people in environmental work. Involving young adults in environmental volunteering is important because it allows the handover of knowledge, values, and principles and ensures climate action in the future. They are the next generation of politicians, doctors, businesspeople, journalists, technologists, community leaders, influencers, etc. People that are going to change the world.<sup>[1]</sup>

## Ethical volunteering

About 4.4 million Australians over the age of eighteen are involved in volunteering: which is about 32% of the population of this age. As these volunteers make up a major portion of the not-for-profit sector's workforce – a sector of the economy worth over \$45 billion or nearly 10% of the gross domestic product – the need for standards to protect their rights is becoming increasingly important. Ethics in volunteering are based on principles such as inclusion, openness, transparency, and sustained engagement.<sup>[6]</sup> Make sure you manage expectations before volunteering. What do you want to learn? And what tasks would you feel comfortable with? It is also good to discuss the accessibility of volunteer options beforehand. Some activities are more wheelchair accessible than others, for example. Check the ethical volunteering checklist and learn about your rights as a volunteer.<sup>[7]</sup>

# NGO one-pagers

The first part of the handbook, touched upon many different industries and developments that are harming the natural environment around us. It also mentioned the systems and structures that are leading us to global warming, natural disasters, biodiversity extinction and inequality. After learning about this, I want to encourage you to try volunteering for at least one of the following environmental NGOs. Especially if the daily life sustainable choices are difficult to make or if you feel like you can't make a difference as an individual, let your first volunteer experience proof you wrong. Most of the young adults that participated in my survey, said they are currently not an environmental volunteer and the main reasons for that, were: *not having time or headspace for it, not knowing what type of volunteering would suit them, and not knowing where to start.* [\[2\]](#)

This second part of the handbook takes away some of the boundaries that you might experience. From the next page onwards, I will introduce you to 10 different environmental NGOs active in Boorloo, Perth. The one-pagers are put together with the help of the NGOs themselves.[\[1\]](#) They are meant for you to browse through and see if any of them catch your attention. If you want to learn more about the organisation in the one-pager, you can *click on their logo* and it will direct you to their website. If you want to know more about how you can contribute to their work or be a volunteer, you can *click on the 'volunteer now!' button* and that will direct you to a webpage for volunteering. These one-pagers are put together so you **save some time** (as you don't need to find all this info yourself and compare NGOs online) while also making it **easy and accessible** for you to start volunteering (thanks to the clickable logos and buttons).

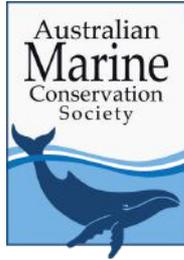
- You CAN contribute to the bigger picture
- You CAN demand systems to change
- You CAN help to make society more sustainable
- You CAN be involved in environmental decision-making

Photo: Alex Kydd





# Protect Ningaloo



Protect Ningaloo is a grassroots initiative hosted by the Australian Marine Conservation Society in alliance with Cape Conservation Group, and the Conservation Council of WA. The initiative is supported by respected scientists, leaders in the local tourism and hospitality industry, and tens of thousands of people.

**Mission** To protect and preserve the unique, world-class natural environment of the Exmouth Gulf, Ningaloo region and build a sustainable, positive future for the area.

**HEAR IT FROM A VOLUNTEER**

*"I find volunteering to be the best way to meet like minded people within a field you are passionate about."*

Charley (21)

**ACTIVITIES**

- Advocate and campaign to protect Exmouth Gulf from industrialisation
- Work with government, scientists, Traditional Owners, the Exmouth community, local businesses, photographers and filmmakers.
- Educate and raise awareness about the outstanding natural, cultural and social values of the Exmouth Gulf.
- Reach out at stalls, social media, websites, radio, etc.

**COMMUNITY**

Protect Ningaloo volunteers play an important role in raising awareness about the incredible Exmouth Gulf, and are always welcome to join. Volunteers choose to help out at events that fit their schedule. No prior knowledge about reef protection is necessary, Protect Ningaloo will ease you into it.

**VOLUNTEER NOW!**



Photo: Blue Media



Photo: Alex Kydd





# Australian Youth Climate Coalition

The Australian Youth Climate Coalition is Australia's largest youth-run organisation. They believe that Climate justice is the most pressing issue this time because climate is inherently connected to everything - from First Nations justice, and housing, to access to clean water, and intergenerational equity. And the only way to solve the climate crisis is through a social movement: a groundswell of support and momentum that is powerful enough to inspire the change we need and hold decision makers to account.

## MISSION

To build a movement of young people leading solutions to the climate crisis.

## ACTIVITIES

- Young people empower their own generation
- Lead a social movement
- Advocate for just an sustainable solutions
- Work together with those most affected by climate change
- Examine and challenge the systems that cause climate change
- Organise events all over Australia and online

## HEAR IT FROM A VOLUNTEER

*"AYCC is an awesome space for young people to come together to fight for change, learn skills and build connections with likeminded people."*

Jordan

## COMMUNITY

- Welcome and information nights
- Trainings and workshops
- Schools program
- Community events
- MP engagement and lobbying
- Campaign strategy and planning
- Community conversations e.g. market stalls

**VOLUNTEER NOW!**



Source: AYCC



Source: AYCC



# BirdLife Australia

Approximately 1 in 6 Australian birds are threatened with extinction. Birds are facing growing threats like habitat loss and degradation, climate change, inappropriate fire regimes, and predation by introduced species. For over 120 years, BirdLife Australia has been at the forefront of bird conservation in Australia. Thanks to BirdLife's supporters, science-based interventions, it has achieved some incredible outcomes for threatened birds. Despite this, birds are increasingly impacted by Australia's extinction crisis.

## MISSION

To stop the extinction of birds by 2032, improve the status of 30% of threatened birds by 2032 and halt overall bird declines by 2050.

## ACTIVITIES

- Educate people about birds and their threats
- Conserve bird habitats
- Mobilise communities to collect data
- Monitor bird populations and communicate about shifts and changes
- Alert and evoke the public and authorities.
- Campaign for systemic change

## HEAR IT FROM A VOLUNTEER

*"When it seems like it's all too big and too hard, BirdLife gives me an opportunity to really feel like I'm making a difference for nature. No matter how big or small."*

**Rochelle**

## COMMUNITY

You can support the work of BirdLife Australia in several ways:

- By attending hands-on activities like bird walks, or by contributing to community led monitoring of bird populations.
- By being involved in their campaigns and writing a letter to your local member of parliament.
- Or by sharing information, having conversations, and helping to raise awareness and engage communities.

BirdLife Australia seeks more young adult representation in their community engagement and encourage people to see volunteering as a social experience.

**VOLUNTEER NOW!**





# Clean State

## Clean State

Australia has an enormous solar and wind energy potential – in fact, some scientists argue that we could meet the global renewable energy demand 100 times over. At Clean State, we believe the transition to a low carbon economy will create massive job opportunities. That's why Clean State was set up – as a non-partisan, not-for-profit climate action initiative advocating for green jobs and a green economy for Western Australia.

To achieve strong WA climate policy that helps us realise our renewable energy potential, diversifies our economy, creates thousands of jobs and builds resilient, climate-smart communities.

MISSION

ACTIVITIES

- Campaigns promoting green-job alternatives to oil and gas.
- Educate by research and publications
- Connect West Australians
- Stakeholder engagement
- Integrating local sustainability

CLEAN JOBS

Clean State has proposed 26 big ideas for creating 200,000 new jobs in WA, while decreasing climate pollution and making WA a fairer, safer and cleaner place to live and work.

**VOLUNTEER NOW!**



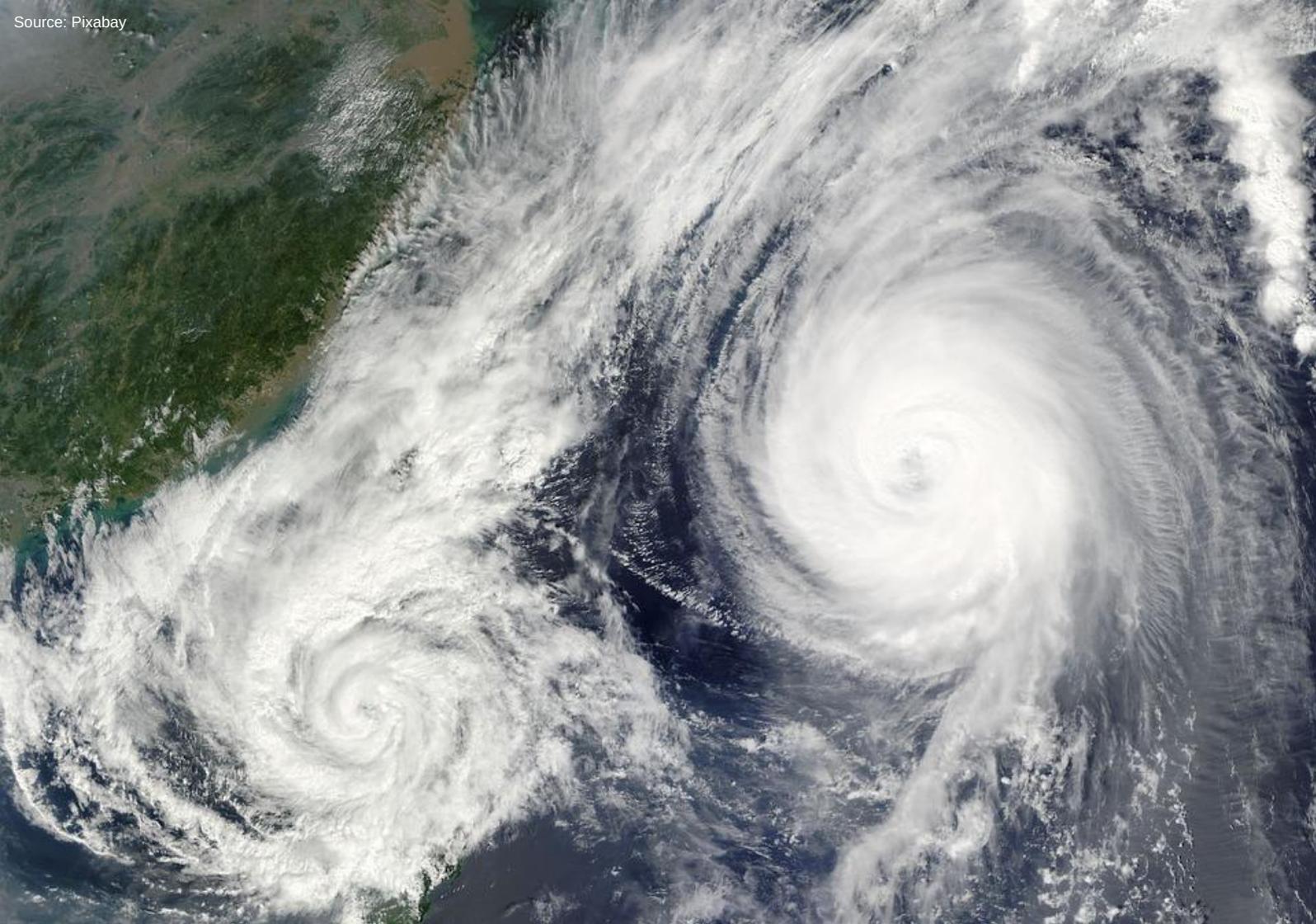
COMMUNITY

The involvement of young adults in Clean State's work is undeniable. It is incredibly important to motivate people to choose green jobs and to empower them to demand systemic change. Clean State would really like to see more volunteers who want to help out with raising awareness, campaigns, graphics, admin, socials, or who want to contribute in any other way.



Source: Clean State





Source: Pixabay



# Climate Justice Union

The Climate Justice Union is a community union made of ordinary people working together to restore a stable climate while taking care of people and place. As the only organisation in WA working solely for climate justice their focus on equity and justice prioritises the involvement and leadership of those most impacted by climate change impacts and/or the impacts of a transition to a low-carbon society and economy, for example local Aboriginal Elders and people who are frequently left out of decision making. CJU was established in 2019 by experienced organisers with backgrounds in health, social justice, trade union and climate organising. Now they are over 330 members strong and rapidly growing.

## MISSION

To make sure WA has the plans and resources in place for a fair and just transition to restore a stable climate while taking care of people, communities and ecosystems for many generations to come.

## ACTIVITIES

- Organise CJU members and others to work for community-led climate justice in a range of settings and sectors.
- Build capacity through training, networking, partnerships and proper resourcing.
- Create spaces and practices that are caring, accessible, safe and inclusive
- Actively work to dismantle the systems of privilege and oppression (eg colonialism and patriarchy) that have caused the climate crisis.

## HEAR IT FROM A VOLUNTEER

*"I love finding out what motivates people and getting them to care about the climate in a way that matters to them (...) CJU sets a high standard for how any volunteering organisations or workplaces should treat their people."*

Charlotte (29)

## COMMUNITY

The main focus of CJU is to build the capacity of members to take collective action for climate justice in their communities and work. CJU also has a wide range of volunteer positions online and in person, such as support at stalls and events, special policy projects, as well as regular and ongoing positions with training, communications and fundraising teams.

**VOLUNTEER NOW!**



Source: CJU



Source: CJU







# Conservation Council of Western Australia

CCWA has been a prominent and forthright voice for conservation for more than 50 years working directly with the government, media, industry, community groups, and political parties to promote a more sustainable WA and to protect our natural environment. CCWA represents almost 100 environmental organisations across Western Australia, with tens of thousands of engaged individuals statewide. This broad collective of like-minded groups and individuals creates a vibrant and passionate community, dedicated to the conservation of our unique and diverse state.

**MISSION** From the rugged far-north of the Kimberley, to the green forested South West, to our amazing coastline and unique marine life, CCWA speaks for the protection and conservation of all nature in WA.

## ACTIVITIES

- Campaign and lobby on a wide range of environmental issues
- Protect nature and biodiversity
- Work towards a uranium free Western Australia
- Support citizen science and data collection
- Fight fossil fuels
- Educate and empower communities

## COMMUNITY

CCWA has a range of volunteer opportunities. Examples are; joining practical field work, working at stalls or community events, contacting your local member of parliament and developing the campaign strategy. There are ample opportunities to get involved. There are plenty of ways to develop your leadership, receive training or upskill your personal capabilities.

## HEAR IT FROM A VOLUNTEER

*"I volunteer for CCWA because I'm passionate about protecting WA's unique ecological systems, empowering our communities, and creating a greener and more equitable future."*

Isabella (27)



Source: CCWA

**VOLUNTEER NOW!**



Source: CCWA





# LOCK THE GATE

FRACK FREE  
KIMBERLEY



FRACK FREE WA

## Lock The Gate

The Lock The Gate Alliance is a national grassroots organisation made up of over 120,000 supporters and more than 260 local groups who are concerned about risky coal mining, and unconventional oil and gas fracking. Located in all parts of Australia, these groups include farmers, First Nations peoples, conservationists and urban residents. The Frack Free WA campaign is part of this movement and focuses on banning fracking in the Kimberley region, and across the state. Our core focus is on education and advocacy through a range of community-engagement activities.

### MISSION

To protect Australia's natural, cultural and agricultural resources from inappropriate mining and to educate and empower all Australians to demand sustainable solutions to food and energy production.

### ACTIVITIES

- Work with communities and in alliance with other organisations to build a powerful movement to support people on the front lines in the Kimberley and help protect the nature and culture of the region from fracking oil and gas fields.
- Inspire, empower and support community action through signing petitions, hosting film screening, running events, workshops and having conversations at market stalls.
- Support community members in connecting to their local Member of Parliament to have their voice heard.
- Stand up for our climate and ensure the government has no choice but to ban oil & gas fracking companies from drilling in the Kimberley.

### COMMUNITY

Lock the Gate aims to empower the community to defend so much of what Australians value. Our unique landscapes, rich Aboriginal culture and land; and our fragile climate. The Frack Free Kimberley campaign supports the community through events, film screenings, supporting community members to meet with their local member of parliament, and many other inspiring activities. There are plenty of volunteer opportunities for you. We are keen to engage with people of all demographics and to support local action teams for some bigger projects and events.

**VOLUNTEER NOW!**

### HEAR IT FROM A VOLUNTEER

*"Lock the Gate are really proactive in the community and highlight the importance of protecting the natural world while working with and supporting Traditional Owners. They are a great organisation and host incredible events."*

Charlie (31)



Source: Lock The Gate





# Urban Bushland Council

The Urban Bushland Council is the peak community organisation for urban bushland recognition and protection and is an association of more than 90 community conservation groups concerned about urban bushland. The Council is a voluntary, non-government organisation which works tirelessly with its member Groups to protect the remaining environmental heritage of the greater Perth, Peel, and Busselton.



Source: UBC



## HEAR IT FROM A VOLUNTEER

*"I have an interest in flora and fauna, I come every week, and am learning lots about the bushland and getting to know new people too. It's great fun."*

**Christa**

## MISSION

To promote the recognition and conservation of urban bushland and its biodiversity

## ACTIVITIES

- Support local action and networking
- Provide access to information, ideas, and expertise
- Develop and promote policy for the protection and management of urban bushland
- Influence systems with submissions, letter writing, delegations and media contact
- Raise public awareness with expert speakers, major symposiums, social media, and training in bushland custodianship

## COMMUNITY

The Urban Bushland Council is voluntary organisation, meaning that all help with admin, events or media is welcomed. Besides UBC supports more than 90 community conservation groups concerned about urban bushland. They are looking for more young adults to get involved, be an active member, and put in sustained effort. Find a group in your area and get involved!

**VOLUNTEER NOW!**







# Western Australian Forest Alliance

Source: Wafa

Wafa was established in 1990 to provide an umbrella organisation for the many groups working to protect WA's native forests. Wafa is grassroots, not-for-profit, and committed to the protection of the forests for the forests' sake. Since its formation, Wafa has worked towards its ultimate goal of the full protection of WA's native forests and woodlands from logging and clearing.



To organise a grassroots community campaign to deliver strategic and effective advocacy for the protection of WA's South-West forests.

MISSION

- Raise awareness about forest protection through campaigns, events, media coverage and visuals.
- Empower people to reach out to their local councils and their members of parliament and to make submissions to the government calling for forest protection.
- Support community groups and their objectives.
- Educate the community through research, fact sheets and publications.

ACTIVITIES

### HEAR IT FROM A VOLUNTEER

*"I really wanted to volunteer my time to feel like I was helping in some way, for the environment, the community and myself and to meet like minded people. It's a very rewarding experience and I definitely recommend it."*

Kirra (29)

Source: Wafa



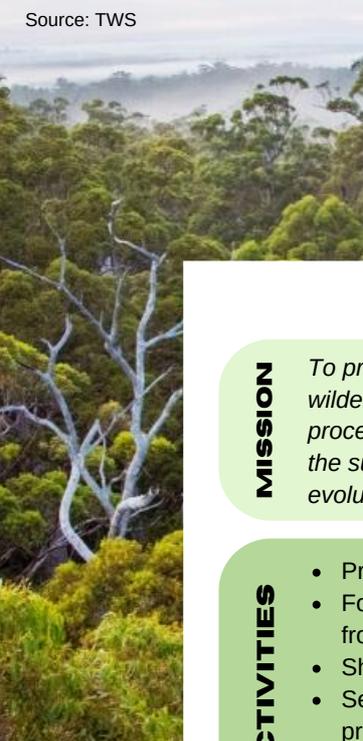
WA Forest Alliance has a long and proud history of being volunteer-driven. Wafa represents more than 25 forest conservation groups in Perth and the South West, so they may be supporting groups in your area. Besides, Wafa is open to all types of volunteers. You can be a campaign volunteer or an organisational volunteer, online or face to face. Or maybe your talents can be connected to another volunteer job like crafting signs or processing data.

COMMUNITY

**VOLUNTEER NOW!**







# The Wilderness Society

The Wilderness Society was established in 1976. For over 40 years now, it has stood at the forefront of Australia's most historic environmental victories. Over the years, the Wilderness Society has grown from a small group of individuals fighting to save the Franklin River in Tasmania into a national organisation that has campaign centres in most Australian capital cities and works to secure better laws for nature on a local and federal level.

## MISSION

*To protect, promote and restore wilderness and natural processes across Australia for the survival and ongoing evolution of life on Earth.*

## ACTIVITIES

- Protect biodiversity in a changing climate.
- Focus on protecting places, species and values of global significance from specific industrial threats
- Shift the power away from vested interests and destructive industries.
- Secure long-lasting change that will shift decision-makers to prioritise protection of Australia's nature and wildlife
- Increase community power and stewardship by supporting and amplifying local community and First Nations voices

## COMMUNITY

The Wilderness Society trains and supports over 35 (and growing!) volunteer groups across the country that come together to form an unstoppable force to protect the places in nature we all love. By joining a Wilderness Society volunteer group near you, you will get the chance to contribute to meaningful work that delivers positive results. This work includes campaigning, tree plantings, political engagement, community gatherings, forums, local media, clean up days and much more.

## HEAR IT FROM A VOLUNTEER

*"Getting involved in meaningful activities that deliver actual results helped me to improve the feeling of powerlessness that comes from the numerous environmental challenges that we face on a daily basis."*

Vania, WA



Source: TWS

**VOLUNTEER NOW!**



# What drives you?

In the end, everyone has their own drive for getting involved with environmental work. Whatever your drive is, there will be an opportunity for you to be involved in one of the many organisations/groups/initiatives. These are some organisations/groups/movements related to a more specific drive. If you haven't found an interesting volunteer opportunity yet, look at these options and check out their websites to see what they have to offer!



Doctors for the Environment Australia is an independent, non-governmental organisation of medical doctors and students. We work to address the public health impacts from damage to our natural environment such as climate change, by influencing the public and decision makers, through education, advocacy and campaigning.



Millennium Kids Inc is a not-for-profit, environmental youth organisation, that empowers young people with a 'skills for life' approach so they can become leaders and change-agents in their communities today. The 21st century needs problem solvers and innovators ready to meet the challenges of the future. Young people have the creative ideas and innovative thinking we need right now.



ARRCC (Australian Religious Response to Climate Change) mobilises people of all faiths to take effective action for climate justice. They stand in solidarity with Aboriginal and Torres Strait Islander peoples, today's young people, people of low-income, climate-vulnerable countries and fellow activists to resist the planet's destruction and to create a sustainable, just future. They are part of the GreenFaith International Network.



Intrepid Landcare aims to provide common spaces to inspire, connect and empower young people to do stuff that matters. They work with a diversity of supporters, partners, and sponsors to engage young people in on-the-ground environmental matters. There's a team based in WA, Perth Intrepid Landcare, who organise young adventurous volunteers (18-30s) to meet up and travel.

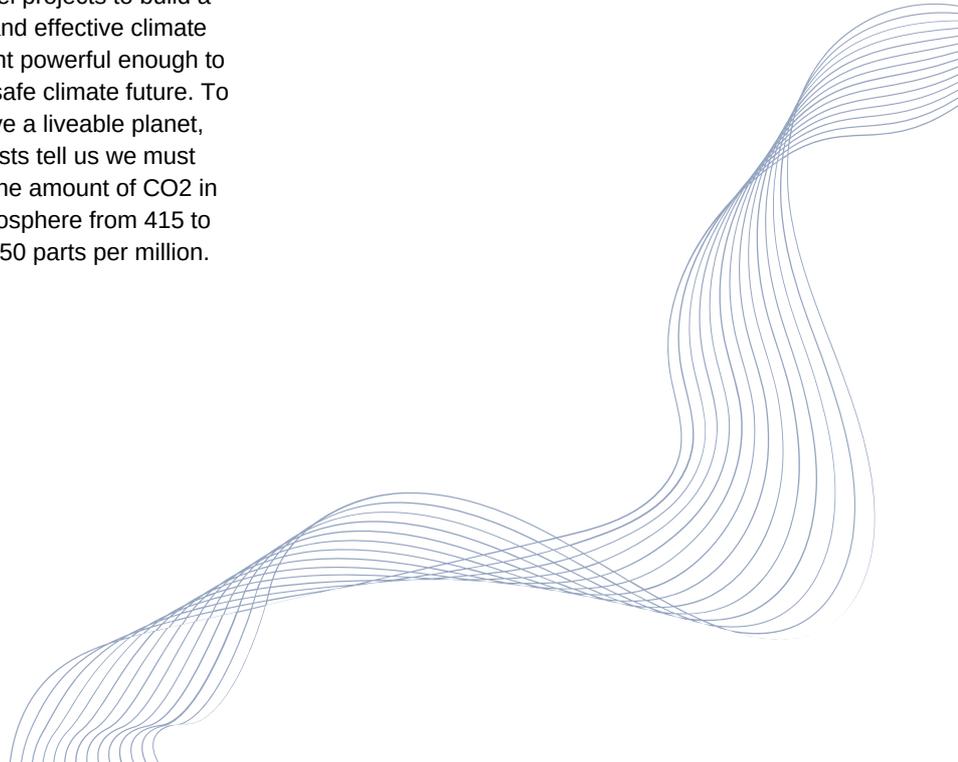


Extinction Rebellion is a global movement which aims to prevent a Climate and Ecological Emergency through a core strategy of mass disruption of city centres through nonviolent civil disobedience. They aim for political change rather than personal change, and organise protests, rallies and actions to achieve this.

As a part of 350 Australia, 350 Perth is building the divestment movement and resisting new fossil fuel projects to build a broad and effective climate movement powerful enough to create a safe climate future. To preserve a liveable planet, scientists tell us we must reduce the amount of CO<sub>2</sub> in the atmosphere from 415 to below 350 parts per million.

## Your uni?

If you're connected to a university, you may be able to find an environmental group or community on campus. Look around on their website or at an open day!



# Thank you

A big thank you to you for reading (or browsing through) this handbook. I've put a lot of time and effort into it and hope it has inspired, informed and encouraged you on your journey to sustainability. I am grateful for this experience in Boorloo, Perth, Western Australia and for being able to see the variety of nature in this state that so desperately needs conservation. I am grateful for The Wilderness Society WA for giving me this internship opportunity and supporting me throughout the project. My colleagues have been more than helpful, bringing me ideas and providing important feedback. I am grateful for all the other NGOs that have worked with me, provided me with input, and encouraged me in developing this handbook. I had a great time.

## Help me spread the handbook

You can make a huge contribution to this project by helping to spread this handbook in your networks. That friend that would probably like it, that little brother or sister, your fellow students or co-workers? If every reader would share it with one person (or more) this handbook will keep on reaching new people and collectively raise a lot of awareness about sustainability and help a lot of people to find their path in environmental volunteering. So, start sharing already!

## Leave some feedback

If you want to leave some feedback, that is very well possible. Your opinion is valued and important for the future adaptations or improvements of the handbook. I created a feedback survey on Google Forms, to make it easy for you to express your opinion and for us to collect them and put them into practice. The QR code on the right or [this link](#) will lead you to the survey. Thanks in advance!



## Future adaptations or improvements

Although I aimed to make the handbook as timeless and general as possible, some things may change over time. Think about extra NGO one-pagers, updated information on sustainability, or additional points on the sustainability map, for example. As I completed the internship program, I won't be able to update this handbook in the future. However, if you would like to contribute to the continuous impact of this handbook, and if you want to make some adaptations, feel free to contact me at [kirstenslikkerveer@outlook.com](mailto:kirstenslikkerveer@outlook.com). I'll send you a document with all the information and access details you need to make an updated version of this handbook. Thanks!

# References

## Introduction

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## Part 1: Sustainability in daily life

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## The link

- 1 [Survey outcome summary](#)

# Part 2: Environmental volunteering

## Introduction

- 1 [Survey outcome summary](#)
- 2 Interviews with 10 Perth-based environmental NGOs, conducted by Kirsten Slikkerveer from January to March 2023

## Community engagement and volunteering

- 1 Interviews with 10 Perth-based environmental NGOs, conducted by Kirsten Slikkerveer from January to March 2023
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## NGO one-pagers

- 1 Interviews with 10 Perth-based environmental NGOs, conducted by Kirsten Slikkerveer from January to March 2023
- 2 [Survey outcome summary](#)
- 3 Websites of 10 Perth-based environmental NGOs, which are linked on their logos

# Survey outcome summary

## Methodology

The target group of the research was young adults of 18 to 30 years old from all over Perth. The strategies for spreading the survey varied from emails to councils and youth groups, to handing out flyers, to putting QRs in op-shops and fresh produce markets, to encountering young adults in front of the state library and at the 2023 open days of Curtin and Murdoch University.

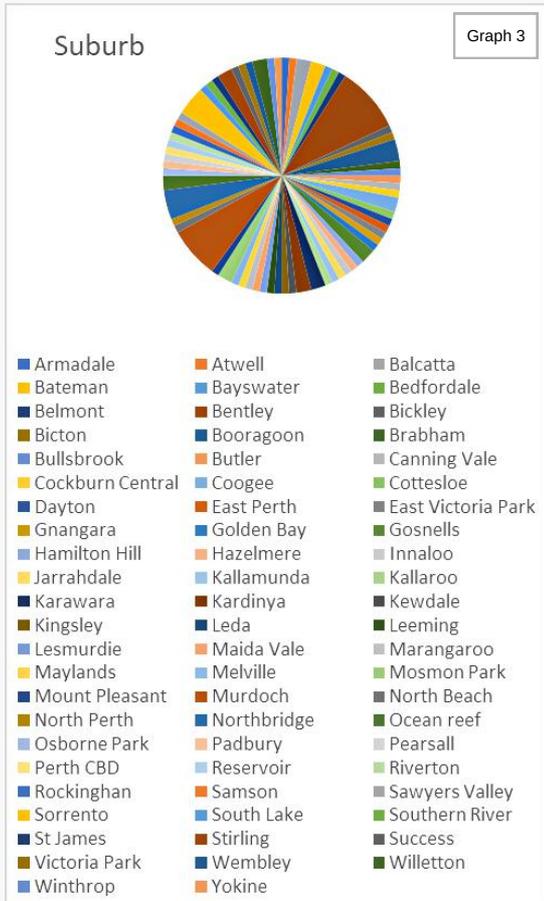
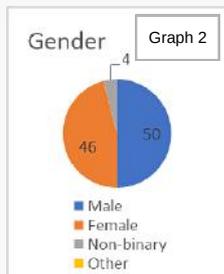
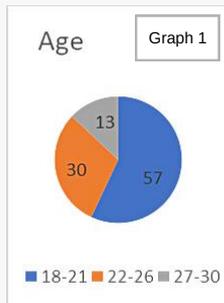
## Demographics

The participants' demographic information is displayed in graphs 1, 2, and 3. The participants were asked for their age, gender and the suburb they live in. The survey consists of **100 participants**.

The **age range** of the participants is displayed in graph 1. The ages range between 18 and 30 years old. 57 of the participants were 18-21-year-olds, 30 of them were 22-26-year-olds, and 13 were 27-30-year-olds.

The **gender** of the participants is displayed in graph 2. 50 of the participants identified as male, 46 identified as female, and 4 identified as non-binary. None of the participants identified as something other than these.

The **suburbs** that the participants live in are displayed in graph 3. The 100 participants lived in 67 different suburbs of Perth. Suburbs, where more than two survey participants lived, are Bentley, Booragoon, Murdoch, Northbridge, and Sorrento.

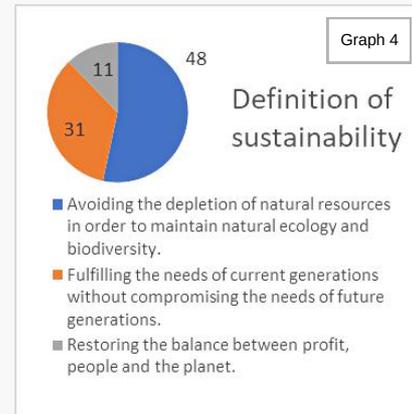
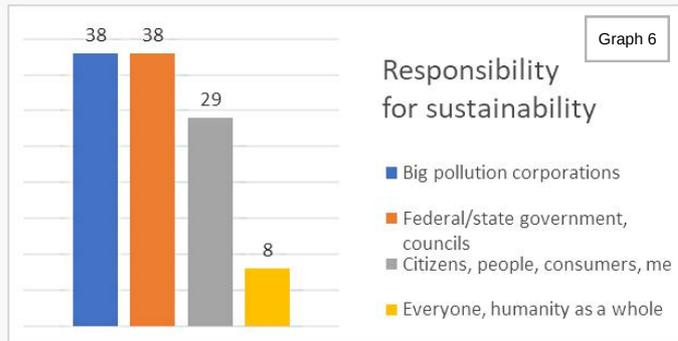


## Environmental sustainability

The outcomes of the questions about environmental sustainability in general are displayed graphs 4, 5 and 6. The questions were: What definition of sustainability do you agree with most? Would you say you are interested in sustainability? According to you, who in society is most responsible for sustainability?

As displayed in graph 4, the majority of participants selected the **definition of sustainability** 'avoiding the depletion of natural resources in order to maintain natural ecology and biodiversity.' The second most chosen definition was 'fulfilling the needs of current generations without compromising the needs of future generations.'

In terms of **interest in sustainability**, graph 5 shows that 98 of the participants claimed they are in some extent interested in sustainability. Half of this group, however, claimed they do not make sustainable choices in daily life and half of them do. 2 of the participants claimed they are not interested in sustainability and don't make any sustainable choices in daily live.



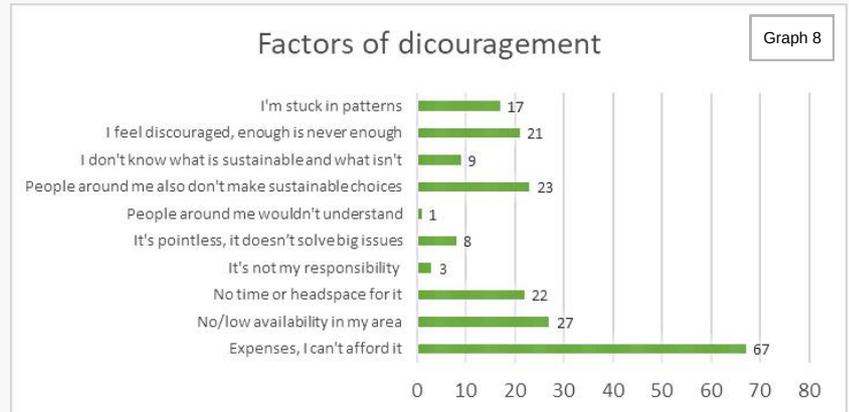
Graph 6 displays the opinions of young adults on **responsibility for sustainability**. Participants were able to select one or more. The boxes of big corporations and government bodies received 76 ticks altogether. 29 participants think the consumer/they are also responsible for sustainability. 8 participants responded that 'everyone' or 'humanity as a whole' is responsible for sustainability.

## Environmental sustainability in daily live

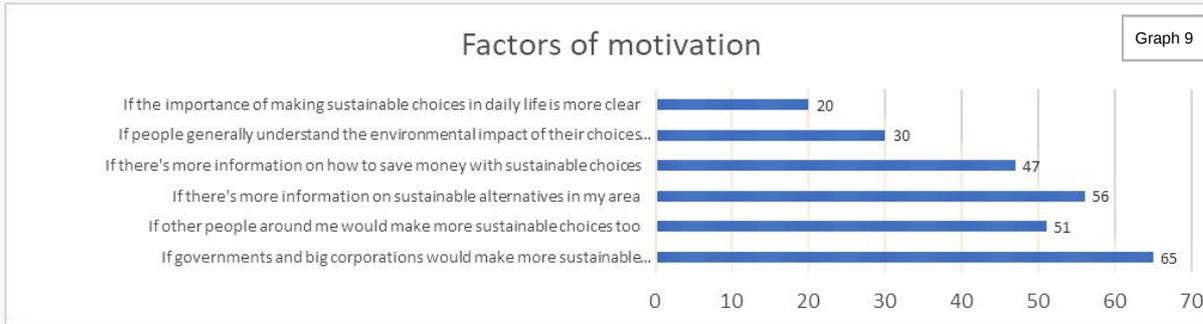
The outcomes of the questions about environmental sustainability in daily life are displayed in graphs 7, 8, and 9. The questions were: What (if any) sustainable choices do you make in daily life? What factors discourage you (and other young adults) from making more sustainable choices? And, what would motivate you (and other young adults) to make more sustainable choices in the future? The participants were able to tick multiple boxes.

Graph 7 displays the **sustainable choices in daily life** that the participants make. The most commonly ticked boxes are: using reusables, avoiding plastic packaging, separating waste, reducing electricity use, driving less/taking public transport, and avoiding fast fashion. The least commonly ticked boxes are: Being on a plant-based diet, checking certifications, greening my home, buying organic/local/seasonal groceries, switching to a sustainable Super Fund, and having conversations about sustainability.

Graph 8 displays the **factors of discouragement** that hold the participants back from making more sustainable choices in daily life. The most commonly ticked boxes are: expenses, low/no availability, no time or headspace for it, and people around me also don't make sustainable choices. Some participants selected that they are stuck in patterns, feel discouraged because enough is never enough, or think it doesn't solve big issues.



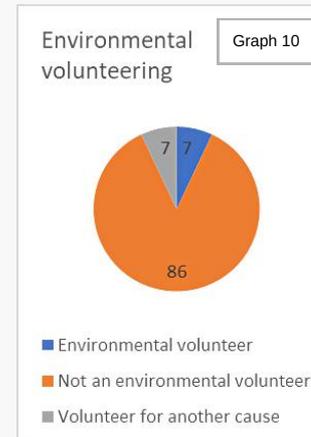
The most common **factors of motivation**, displayed in graph 9, to make more sustainable choices in the future were: if governments and big corporations would make more sustainable choices too and if other people around me would make more sustainable choices too. The responses also show that young adults would be motivated by knowing more about the sustainable alternatives in their area and about how to save money with sustainable choices. This corresponds with the outcomes and conclusion of the previous question.



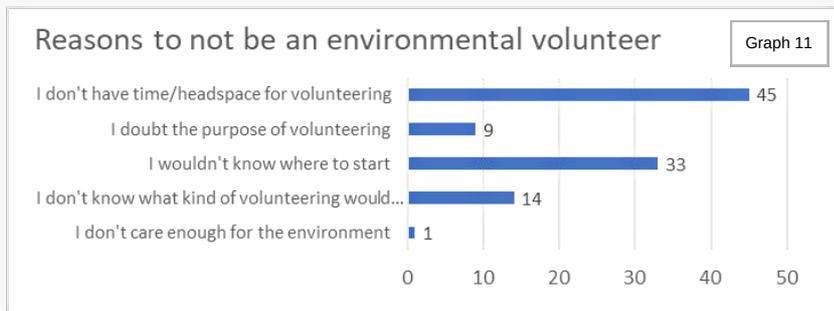
## Environmental volunteering

The outcomes of the questions about environmental volunteering are displayed in graphs 10, 11, and 12. The questions were: Are you currently an environmental volunteer? If not, why? And, what would motivate you (and other young adults) to start environmental volunteering?

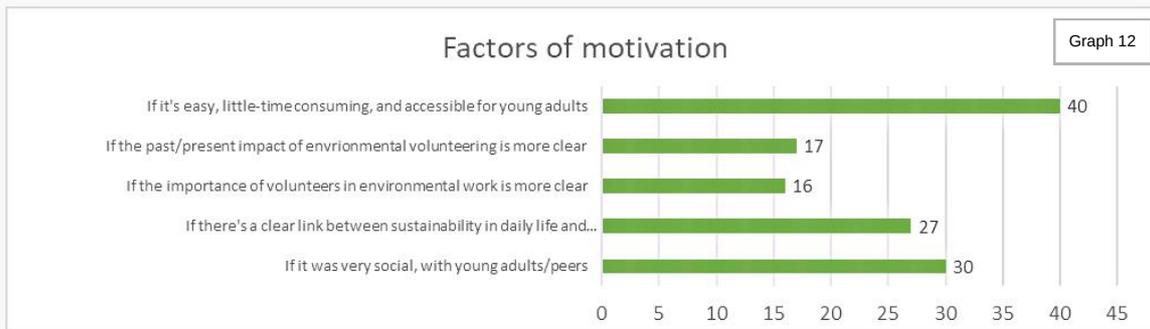
Graph 10 displays the amount of participants that are an **environmental volunteers**. 7 participants are currently environmental volunteers, 7 participants are volunteers, but for causes that is unrelated to environmental sustainability, and the vast majority of the group, 86 participants, are currently not environmental volunteers.



The participants that are not environmental volunteers were asked about their **reasons**. Participants were able to select multiple answers, as displayed in graph 11. The most common answers were: I don't have time/headspace for volunteering, I wouldn't know where to start, and I don't know what kind of volunteer work would suit me. Only 1 participant claimed they didn't care enough for the environment. A few participants doubt the purpose of volunteering. Other participants wrote an open answer, explaining they are volunteering for another cause, can't find a placement in Perth, are held back by a disability, or have other priorities in life.



Lastly the participants were asked what factors would **motivate** them to be an environmental volunteer in the future. Participants were able to select multiple answers. The responses are displayed in graph 12. The most common answers are: If it's easy, little-time consuming, and accessible for young adults, if it was very social, with young adults/peers and if there's a clear link between sustainability in daily life and environmental volunteering. Some participants wrote an open answer explaining they would be motivated if: they see more volunteer opportunities that focus on advocacy and impacting systems, if volunteering is more accessibility and flexible with times, if organisations are working better with young people and diversity, or if they can gain skills with it.



## Research conclusions

### Environmental sustainability

Based on the definitions that the participants chose, the majority of young adults base their perception of sustainability either on ecological or social reasoning, for nature and people. Nowadays most young adults have some kind of interest towards the topic of sustainability. Whether they actually make sustainable choices in live, however, differs a lot. The majority of participants see sustainability as something that is not their direct responsibility, but rather something for the agenda of governments and big (polluting) corporations. Some people however, think that consumers are also responsible for sustainability, or that everyone plays a role.

### Environmental sustainability in daily life

Young adults generally use reusables, avoid plastic packaging, separate waste, and reduce electricity use. Although nearly half of the participants claimed they didn't make any sustainable choices in daily life, this group still selected these choices too. Most likely, these choices are well-introduced in society and accessible, and young adults have different motivations for making these choices, such as cutting expenses. These are relatively easy choices to make. Young adults find it more difficult to be on a plant-based diet, check certifications, green their homes, or buy organic/local/seasonal groceries. They also don't often have conversations about environmental sustainability.

Young adults feel discouraged to make sustainable choices by the high expenses, low availability, and lack of time and headspace to think about this, along with other people around them also not making sustainable choices in daily life. The participant let us know that if governments, corporations and the people around them would make more sustainable choices and there is more information on sustainable alternatives in Perth and how to save money, this would encourage them and other young adults to make more sustainable choices too.

### Environmental volunteering

The vast majority of participants in this survey are not environmental volunteers. Their reasons for this are the lack of time and headspace for it and the fact that they don't know what type of volunteering would suit them or where to start. If volunteering was easy, less time-consuming, and accessible for young adults, while also being social with peers, this would encourage them and other young adults to be environmental volunteers. It would also help if the link between sustainability in daily life and environmental volunteering was more clear, and if there's more information about the impact of volunteering and the importance of it in the environmental work of NGOs. Some participants explained they would be encouraged if the system impact, the (time) accessibility, youth involvement, diversity, or skill development in environmental volunteering would be prioritised.

**THE END**