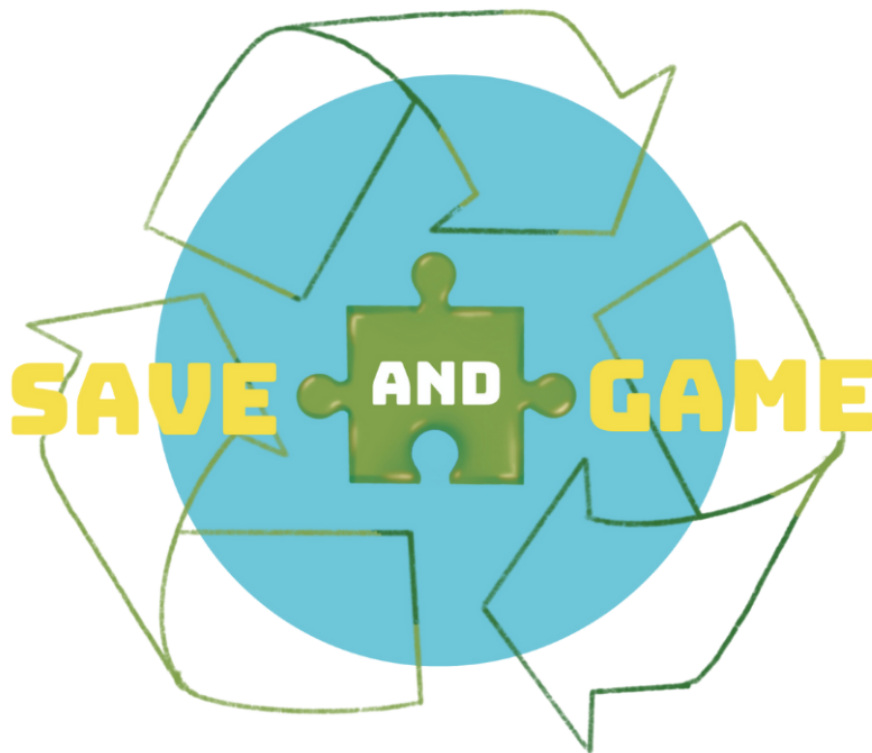
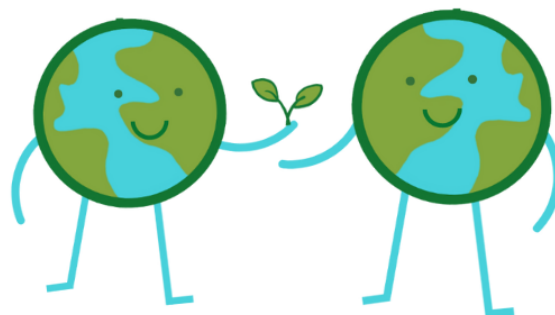


# Guide on sustainability and how to fight waste in consumption



**"You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of a difference you want to make."**

**Jane Goodall**



# TABLE OF CONTENT



**01**

**Introduction to the concept of sustainable development**

**1-8**

**02**

**Ecological carbon footprint and sustainability test**

**9-14**

**03**

**Goal 12-Responsible consumption and production**

**15-21**

**04**

**Introduction to climate change**

**22-34**

**05**

**How is overconsumption related to climate change**

**35-42**

**06**

**Zero waste-Principal of 5R**

**43-58**

**07**

**What can young people do to live more sustainably**

**59-70**

# 1. Introduction to the concept of sustainable development and Agenda 2030

## 1.1 Premise

The Save And Game Trainers' Guide aims to help youth workers bring young people closer to sustainable development issues so that they are challenged to reflect on their actions, to consider their current and future social, economic, and environmental impacts from both a local and global perspective. Young people need to be empowered to act sustainably, which may require changing their habits and participating in sociopolitical processes by directing the societies and the communities in which they live (starting with family and school) toward sustainable development. The project wants to propose a method and tools that make this educational necessity enjoyable, taking advantage of the dynamics inherent in gamification. But to get there, we would like to provide trainers with some basic information on sustainable development concepts and related issues to create a solid starting point for their needs.

## 1.2 Sustainable development: a brief excursus

The topic of sustainability has a long history. So let us try to identify some milestones starting from its origins:

- 🌍 Club of Rome report "Limits of Growth" (1972).

It represents the starting point. Although the phrase "sustainable development" does not explicitly appear there, the Report has the merit of bringing forcefully into the international debate the issue of the unsustainability of a development model that seems to consider the planet an inexhaustible mine of resources at our disposal.



- 🌍 Brundtland Report "Our Common Future" (1987).

The term and concept of "Sustainable development" officially compares. It is explicitly defined as that development capable of meeting the needs of the present generation without compromising those of future generations.

- 🌍 Agenda 21, Earth summit - UN Conference on Environment and Development, Rio de Janeiro (1992)

It establishes that sustainable development cannot be limited to environmental aspects but must also consider economic justice and social equity: true sustainability must be simultaneously environmental, economic and social. Another strong message is the close connection between global and local aspects, as expressed by the slogan "Think Globally-Act Locally." It is a growth marked by savings, the preservation of resources and the avoidance of excesses, which translates into small actions or radical changes in activities that individuals and companies can implement:

- ✔ The adoption of renewable energy sources
- ✔ The recycling and reuse of products and circular economy processes
- ✔ The choice of sustainable mobility

However, environmental attention is not the only pillar on which sustainable development rests. There is also talk of social sustainability, i.e., the ability for a society to ensure equitably distributed conditions of well-being to achieve equality and eliminate discrimination. Agenda 21, adopted by the summit participants, contains guidelines (in the social, cultural, environmental and economic fields) that sustainable development projects must be inspired by. In this document, great importance is assigned to the active role of the population: Chapter 28 urges each community to draw up a local version of this document, the so-called Local Agenda 21, which, in its intentions, should be a real shared



plan of environmental action, the result of a strategy that includes the broadest possible participation of the population.

### 🌍 Agenda 2030

It was signed in September 2015 by the governments of the 193 member countries of the United Nations. It is an action program for people, the planet and prosperity. It has effectively taken up and reworked the concept of global sustainable development introduced in 1987. It represents a further step toward globalised economies and societies committing to more equitable, resilient, and just development models, rationalising the use of natural resources according to the carrying and regenerative capacities of the biosphere. As a result, environmental, social, and economic sustainability have found complete and concrete expression in the 2030 Agenda for Sustainable Development: an action agenda in 17 common Goals, the Sustainable Development Goals (SDGs), all adhering countries commit to achieving by 2030.



# Global Sustainability Trends 2023



1

## 1.3 The 17 Sustainable Development Goals

Agenda 2030, which officially came into effect on January 1, 2016, thus represents a formal and official commitment to eliminate extreme poverty and promote development sustainability worldwide by 2030.

<sup>1</sup> <https://www.greenmatch.co.uk/blog/sustainability-trends>

The Agenda consists of 4 sections:

- A policy statement
- **17 new Sustainable Development Goals (SDGs)** and 169 targets that aim to eliminate poverty and achieve sustainable development by 2030, as well as more than 240 related indicators
- The means of implementation
- A framework for the follow-up and review of the implementation of the Agenda itself in the post-2030 period.

Let's look at a summary of the **17 Sustainable Development Goals (SDGs)**:

## SUSTAINABLE DEVELOPMENT GOALS



- 1 Eradicate poverty in all its forms and everywhere in the world
- 2 Zero hunger, achieve food security, improve nutrition and promote sustainable agriculture
- 3 Ensure healthy living and promoting the well-being of all at all ages

- 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- 5 Achieve gender equality and self-determination for all women and girls
- 6 Ensure the availability and sustainable management of water and sanitation for all
- 7 Ensure access to affordable, reliable, sustainable and modern energy for all
- 8 Promote lasting, inclusive and sustainable economic growth, full employment and decent work for all
- 9 Build resilient infrastructure, promote inclusive and sustainable industrialization, and support innovation
- 10 Reduce inequalities within and between countries.
- 11 Make cities and human settlements inclusive, safe, resilient, and sustainable
- 12 Ensure sustainable consumption and production patterns
- 13 Take urgent measures to combat climate change and its consequences
- 14 Conserve and sustainably use the oceans, seas, and marine resources
- 15 Protect, restore, and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss
- 16 Promote peaceful and inclusive societies geared toward sustainable development, ensure access to justice for all, and build effective, accountable and inclusive institutions at all levels
- 17 Strengthen implementation arrangements and revitalise the global partnership for sustainable development

The Sustainable Development Goals are all interrelated. Therefore, Agenda 2030 poses a complex challenge: since the three dimensions of development





(economic, environmental, and social) are closely interlinked, each Goal cannot be considered independently but must be pursued on the basis of a systemic approach that takes into account their interrelationships and does not have adverse effects on other spheres of development. Only the integrated growth of all three components will enable sustainable development.

Everyone is called upon to contribute because the SDGs are universal; they refer to problems common to all nations. For this reason, all countries are called to contribute to the challenge to bring the world onto a sustainable path, no longer distinguishing between developed, emerging, and developing countries. Each country must commit to defining its sustainable development strategy to achieve the SDGs and to report its results to the UN.

Not only that. Within countries, there needs to be a strong involvement of all parts of society, from business to the public sector, from civil society to philanthropic institutions, from universities and research centres to information and cultural workers: everyone's commitment is essential.

#### **1.4 Where do we stand today?**

Six years after the launch of the 2030 Agenda, as noted in "The Sustainable Development Goals Report 2020" (UN, 2020), there is initial mixed evidence regarding the achievement of each SDG both globally and nationally. Despite considerable efforts and some progress achieved in 2015-2019, many countries are lagging in achieving most of the targets for each SDG expected by 2030. Consequently, in September 2019, UN Secretary-General António Guterres called on all sectors of society to mobilise for a new "Decade of Action" that can accelerate the implementation of the 2030 Agenda through:

1. Greater leadership, more investment, and implementation of more effective solutions in pursuing the SDGs globally



2. Greater consideration of the transitions needed to support sustainable development in the policies, budgets, institutions, and regulatory frameworks of governments, cities, and local authorities
3. **Greater activism of civil society and all stakeholders** (i.e., media, private sector, trade unions, universities and research institutions, funders and investors, citizens, etc.) that supports the necessary actions for change.

The ongoing global societal and economic crisis exposed by the Covid-19 pandemic further complicates the implementation of required actions to support development sustainability. In particular, the increase in poverty and unemployment rates on a global scale induced by the current global economic recession has lowered the global average SDG index score for 2020 compared to the previous year<sup>2</sup>. But on the other hand, the Covid-19 pandemic and its causes and effects must reinforce the awareness of how urgent it is to implement those changes to achieve the priorities outlined in the 2030 Agenda globally and locally. Knowledge, information, and education play a crucial role in this scenario. Thus, the 2030 Agenda devotes a strategic role to "Education for Sustainable Development."

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<sup>2</sup> Sachs et al., 2021



## 2. Ecological/carbon footprint - explanation and sustainability test

### 2.1 Earth Overshoot Day and Ecological/carbon footprint

The Earth Overshoot Day is the day on which the world's population officially exhausts all available and renewable terrestrial resources (food, water, wood, ...) for the current year, thus beginning to overexploit the planet, eating animals that have not yet reproduced, consuming more oxygen than is absorbed by oceans and forests. The calculation is made by the international research organisation Global Footprint Network.

In 2022, the Earth ran out of its available annual renewable resources on July 28, or a little more than halfway through the year. Since that day, people have begun to draw from foods and energy sources that should belong to future generations. Currently, humanity is devouring roughly twice as many resources as it should be exploiting each year (in practice, we should have at least 1.75 Earth available, according to Global Footprint Network estimates). In general, what emerges is that every year Earth Overshoot Day comes earlier because of the steady increase in global consumption.



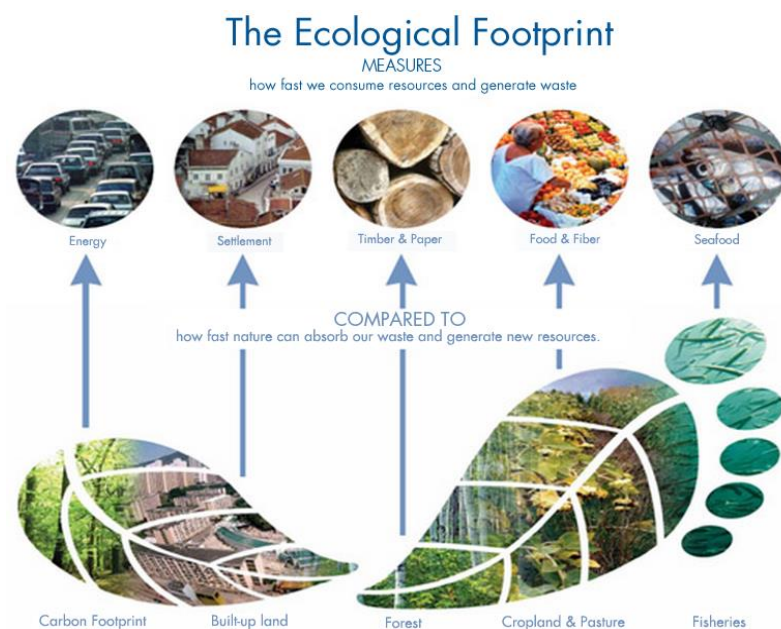
#### Did you know?<sup>1</sup>

Earth Overshoot Day	When?
2022	28 July
2016	8 August
2000	30 September
1970	29 December

<sup>1</sup> <https://www.overshootday.org/newsroom/past-earth-overshoot-days/>

This means that humankind is consuming the future, eroding resources that have not yet been generated and that may come to lack for future generations since, at this rate, the planet no longer has time to regenerate (and what's more, it should not be forgotten that it is 20 % of the world's population that consumes 80 % of the planet's resources).

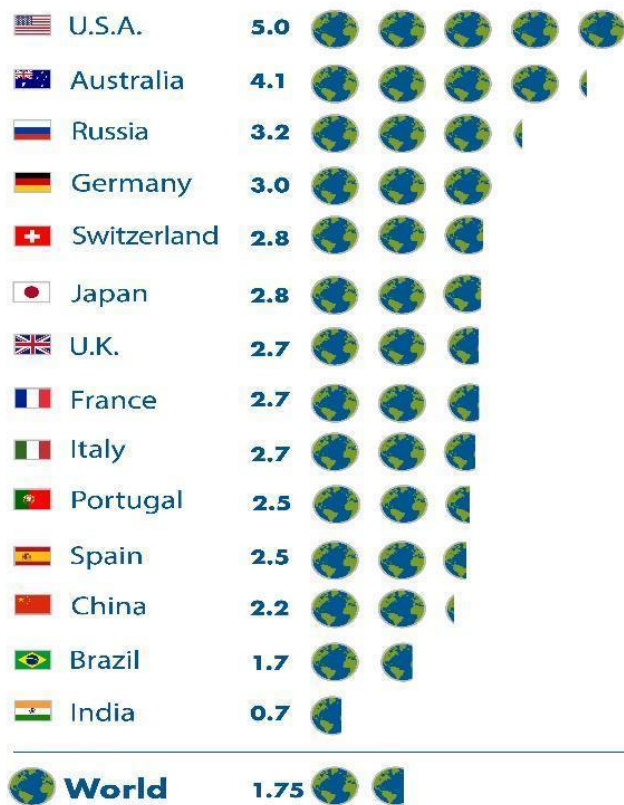
Thus, the ecological footprint is an indicator that measures human beings' consumption of the natural resources that the Earth produces. The concept was first proposed in 1996 by Mathis Wackernagel and William Rees in the book "Our Ecological Footprint: Reducing Human Impact on the Earth." What is measured is the "planet Earth" we need to conserve the current consumption of natural resources.



The Global Footprint Network calculates each country's ecological footprint. It is possible to view the data interactively here: <https://data.footprintnetwork.org/#/>

We provide below an illustration of the Global Footprint Network, covering the year 2017.

## How many Earths do we need if the world's population lived like...



Source: Global Footprint Network National Footprint Accounts 2019



2

The consequence is that more carbon dioxide is emitted into the atmosphere each year than the oceans and forests can absorb. The seas and oceans resources are consumed faster than they can reproduce and replenish themselves.

However, there is some good news: China has laid out a plan to cut meat consumption in half (directly impacting carbon emissions). Costa Rica produces 97 % of its electricity from renewable sources. COVID-19 and the global lockdown highlighted that a rapid change in consumption produces a noticeable

<sup>2</sup> [https://www.overshootday.org/newsroom/press-release-june-2019-german/how\\_many\\_earths\\_2019\\_german\\_update-small/](https://www.overshootday.org/newsroom/press-release-june-2019-german/how_many_earths_2019_german_update-small/)

impact. With the reduction of human activities across most of the planet, carbon emissions decreased by 14.5 per cent. The Overshoot Day calculation had taken an unexpected leap back about 15 days! It is estimated that if the world's population could cut annual carbon dioxide emissions in half, Overshoot Day would leap back at least three months! According to organisers of the #Movethedate campaign, which encourages every citizen to help reduce their carbon footprint, it would only take moving the date forward 4.5 days each year to put us on par with natural resources by 2050. Each of us can contribute: even with small gestures (e.g., reducing water waste, meat consumption, car use, etc.).

## 2.2 How can the ecological footprint be reduced?

Everyone should know that each of us is a producer of CO<sub>2</sub>. The global volume of CO<sub>2</sub> also depends on our lifestyles as actions have to do with energy and thus determine the burning of fossil fuels. Small gestures and shrewdness already enable us to do something.

Take a look at this interesting page that suggests actions based on our wishes and needs, and personal situation:

<https://youchangeearth.org/re-earth-initiative/>

For example, some simple actions can be:

- ✔ Turn off lights, TVs, and monitors when you are done using them
- ✔ Avoid using the elevator unless necessary
- ✔ Turn down the heating a few degrees if it is too hot
- ✔ Move around by bike or on foot

These are examples of primary footprints that directly affect CO<sub>2</sub> emissions.

There is also a secondary footprint related to our daily habits, such as:



- ✔ Buy seasonal foods that are not imported
- ✔ Buy local fruits and vegetables or perhaps trying to grow them in the garden
- ✔ Do not buy bottled water if your home water is safe to drink
- ✔ Recycle as much as you can

Of course, not only people have their ecological footprint, but also homes, schools, businesses, etc.

There are essentially two ways to reduce the ecological footprint:

- 💡 By implementing behaviours that reduce consumption
- 💡 With offsets to reduce emissions

Offsets consist of purchasing trees for planting to support sustainable afforestation projects, particularly in Kenya or the Amazon (the world's green lung) because they reduce an equivalent volume of emissions equal to the downsizing caused by humans. This creates "carbon credits" by supporting reducing CO2 emissions in the atmosphere.

### 2.3 How is the ecological footprint calculated?

The calculation of the ecological footprint is quite complex and derived from an estimate of all the different consumption, most of which fall into five categories:

- 🌍 Food
- 🌍 Transportation
- 🌍 Housing
- 🌍 Consumer goods
- 🌍 Services

Each of these items determines an ecological footprint: the land needed to produce energy (whether sustainable or not), the land cultivated, the land used for grazing, the forest land used to produce timber and paper, the marine area used for fishing, and the land used to build houses and factories.

Many sites allow people to calculate their ecological footprint:

- <https://www.footprintcalculator.org/home/en>

It explains how many planets would be needed to meet the needs of the world's population if all Earth's citizens lived according to our lifestyle.

- <https://footprint.wwf.org.uk/>

- <https://eplca.jrc.ec.europa.eu/ConsumerFootprint.html>

- [https://shokawano.shinyapps.io/BEACN\\_Calculator/](https://shokawano.shinyapps.io/BEACN_Calculator/)

- <https://calculator.carbonfootprint.com/calculator.aspx?lang=it&tab=2>

Also, there is an interesting book titled "How Bad are Bananas? The Carbon Footprint of Everything." It is a 2010 book by Mike Berners-Lee. The book details the carbon footprint of a wide range of activities and helps steer people toward less emission-costly lifestyles. There is also a new expanded edition from 2020 (<https://howbadarebananas.com/>).

What we would like to provide in this guide is not only to provide a method of calculation, as there are many sites where this is made possible, but to make young people aware through a test, available in a digital version [here](#).



### 3. Goal 12 - Responsible consumption and production

Sustainable Development Goal (SDG) 12 calls for responsible consumption and production, essentially decoupling economic growth from unsustainable resource use and emissions and improving the management of hazardous substances and waste, which is key to sustaining the livelihoods of current and future generations.

Sustainable consumption and production is about promoting resource and energy efficiency, responsible management of chemicals, sustainable public procurement, the necessity for companies to adopt more sustainable practices, sustainable infrastructure, providing access to basic services, green and decent jobs and a better quality of life for all.<sup>1</sup> Unsustainable patterns of consumption and production are the root causes of the triple planetary crises of climate change, biodiversity loss and pollution. SDG 12 needs a comprehensive set of actions from businesses, policy-makers, researchers and consumers to adapt to sustainable practices. It envisions sustainable production and consumption based on advanced technological capacity, resource efficiency and reduced global waste. Achieving economic growth and sustainable development requires that we urgently reduce our ecological footprint by changing the way we produce and consume goods and resources.

The efficient management of our shared natural resources, and the way we dispose of toxic waste and pollutants, are important targets to achieve this goal. Encouraging industries, businesses and consumers to recycle and reduce waste is equally important, as is supporting developing countries to move towards more sustainable patterns of consumption by 2030.<sup>2</sup>

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<sup>1</sup> <https://sdgs.un.org/goals/goal12>

<sup>2</sup> <https://www.undp.org/sustainable-development-goals/responsible-consumption-and-production>



### Did you know?

- Agriculture is the biggest user of water worldwide, and irrigation now claims close to 70 percent of all freshwater for human use. (UNDP)
- The WWF's Living Planet Report 2022 finds wildlife populations have declined by an average 69% in the past 50 years. (WWF)

Responsible consumption is behaviour that includes the responsible use of natural resources, the efficient use of organic products, waste sorting, recycling and so on. Practising responsible consumption also means knowing better the products being bought and their environmental, social or economic impacts.

So, some of the actions you can take to help advance SDG 12 is definitely responsible consumption, trying to adapt to sustainable practices, minimising food loss and waste. Research the life cycle of products before you buy them. First reduce and reuse and then recycle! More ways to reduce unnecessary consumption in your home is to bring on solar power, try to travel green, buy sustainable and eco-friendly materials or donate.



Pictorial representation of excessive consumption

Made in Canva

Of course, it's not all up to the individuals. Companies have a bigger share in all of this. Companies should enable sustainable consumption by developing innovative solutions that can reduce energy needs in usage and educate consumers about these benefits. Reduce manufacturing impacts by substituting virgin raw materials in products with post-consumer materials through recycling and upcycling. To maintain production sustainability and sustainable manufacturing companies need to increase operational efficiency by reducing costs and waste, respond to or reach new customers and increase competitive advantage, protect and strengthen brand and reputation and build public trust. Build long-term business viability and success and respond to regulatory constraints and opportunities. Economists divide the factors of production into four categories: land, labour, capital, and entrepreneurship. The first factor of production is land, but this includes any natural resource used to produce goods and services. This includes not just land, but anything that comes from the land.<sup>3</sup>

There are some examples of good practices such as for example electric and fuel cell drives, electro-chemical and thermal storage of energy, combined heat and power, bioplastics and composite materials, digital networking of systems and supply chains, the crops used to create the textiles are less water intensive and grown free of chemicals. Additionally, they aspire to reduce their manufacturing waste and create long-lasting clothing to divert textile waste from landfills.

In conclusion, responsible consumption and production means that buyers, whether involved in the economy as a private or public entity, or as citizen consumers must make their choice taking into account environmental impacts at all stages of the product life cycle and aim to “do more and better with less.”

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<sup>3</sup> <https://www.mdpi.com/2313-4321/7/5/79>



Photo by [Antoine GIRET](#) on [Unsplash](#)

### 3.1 Consequences of overconsumption on a personal level

Overconsumption on a personal level is, simply, individuals consuming more resources than they need and that the earth can provide. This extreme behaviour also prevents the natural renewal of resources due to the speed of consumption. So, ecosystems are unable to cope with excessive resource extraction which results in a bigger level in biodiversity loss and the deterioration of the natural world.

Overconsumption in your daily life could involve buying too many products, eating too much food or watching too much television.<sup>4</sup>

Some research says that materialistic tendencies may result in many adverse psychological effects including hoarding, self-esteem issues and depression. In reality, a lifestyle based on overconsumption creates pollution, inequality, debt, destruction, anxiety, stress, fear etc. In pursuit of financial gains and recognition, people often forget that the external manifestations of success don't matter as much as we have been programmed to believe they do. We all know how buying new things gives us a short term burst of happiness. However, very soon there is the need to buy something else. This creates a vicious cycle of consumerism that many of us fall victim

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<sup>4</sup> <https://www.weforum.org/agenda/2022/10/nature-loss-biodiversity-wwf/>

to. As damaging as this cycle is for our bank accounts it can be just as damaging to our mental health.



### Did you know?

- Research as far back as the 1800's has found that there is a link between over consumption and poor mental well-being. In 1899 the American economist Veblen found that people were 'living on treadmills of wealth accumulation, competing incessantly with others but rarely increasing their own well-being.

Modern research coincides with this observation and tells a very similar story. Tim Kasser is an acclaimed psychologist, known for his work into materialism and well-being. Kasser observes that there is a connection between an excessively materialistic outlook and increased levels of anxiety and depression. He found out that when people prioritised materialistic goals in their lives they tended to have poor personal well-being which means lower happiness and life satisfaction levels and more personal illnesses (anxiety and depression). Interestingly, He also observed that they behaved differently socially. They were more manipulative and competitive towards the people in their lives, and lacked empathy.<sup>5</sup>

End to this cycle starts with educating yourself. Know what you are consuming. The first step towards living a more planet-conscious life is asking yourself what are your daily habits? There is a mnemonic method in French called "BISOU" (which means kiss in French). The method has been taken from the book "J'arrête de surconsommer" written by Marie Duboin and Herveline Verbeken.<sup>6</sup> It consists of asking yourself the following five questions before buying:

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<sup>5</sup> <https://robertastylelee.co.uk/overconsumption-is-affecting-our-mental-health/>

<sup>6</sup> <https://zero-waste.brussels.be/alternative-consumption>

**B** = Besion (need): to what need does this purchase respond?

**I** = Immédiat (immediate): can I wait a few days before deciding to buy it?

**S** = Semblable (similar): don't I already own a similar item?

**O** = Origine (origin): what's the origin of that item?

**U** = Utilité (useful): will this item be useful in my everyday life?



Write it all down. Putting it on paper can be pretty eye-opening. Also, think about how much of that stuff is essential for your survival, how much is important to your happiness and comfort, and how much is just excess or luxuries. It is not that we should stop shopping forever. Of course not, just become more aware of what you are buying. There is no harm in feeling good about a purchase when that purchase is actually doing good. When you buy good quality, ethical products rather than cheap, fast fashion you're not only doing good for the planet you're also buying items that are going to last more than one season.

There is something in learning to be happy with less! When you find that you're making progress with cutting down in your own life, share it! By aiming to inspire each other we can all start to create a positive movement towards more mindful consumption. The potential benefits for our health, happiness, wallets and planet are huge. Reassess where you get your happiness from, start by recognising what you have in life, not just possessions but the wonderful people you have around you and all the amazing experiences you have.

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Photo by [the blowup](#) on [Unsplash](#)



Photo by [Nick Fewings](#) on [Unsplash](#)

## 4. Introduction to climate change

In this chapter, you will dive deep into the causes and consequences of climate change, and you will also learn about what you can do to protect the planet and yourself.

### 4.1 What is climate change?

Climate change refers to long-term alterations in temperature and weather patterns.<sup>1</sup> The term “climate crisis” is also often used to introduce this phenomenon. Indeed, not only is our global climate system slowly changing, but this situation has become more than an emergency.

The first element that we will focus on is the rise of the average temperature on the Earth’s surface, a phenomenon also known as “global warming”. During the 1850-1890 period, right after the beginning of the Industrialised era, the mean global temperature on Earth was around 13.6°C. More than a century later, in 2021, the mean global temperature has risen to around 14.8°C.<sup>2</sup> The year 2021, soon followed by the year 2022, is even amongst the 10 hottest years ever recorded.

This means that in a little over 100 years, the atmosphere gained more or less 1.2°C. It might seem a little bit derisory because, in our daily lives, we can hardly feel a 1°C change, but it is actually a huge change in the atmosphere. The experts from the International Panel on Climate Change (IPCC) warned us that we absolutely need to limit the global temperature rise to 1.5°C. If we fail to do so, the living conditions on the planet will become uninhabitable. However, the IPCC’s calculations from their latest report show that global warming will continue in the future, and with the ongoing policies, we will reach a 3.2°C

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<sup>1</sup> <https://www.un.org/en/climatechange/what-is-climate-change>

<sup>2</sup> <https://history.aip.org/climate/timeline.htm>



temperature rise by 2100.<sup>3</sup> This, of course, is beyond catastrophic, as it would have damaging consequences on biodiversity and human health: loss of up to 100% of species in certain areas of the globe, higher mortality rate due to heat and humidity and/or food insecurity, etc.<sup>4</sup>

This does not sound good at all. Naturally, it is the worst-case scenario; that's if we do absolutely nothing to reduce our greenhouse gas emissions. But be assured that the best-case scenarios do not appear very optimistic either. The IPCC already stated that catastrophic results cannot be ruled out from our future any more...

This leads us to our second important element linked to climate change: the intensification of extreme weather events. You might already have noticed that heat waves, storms and heavy rains are occurring more frequently in Europe than a few decades ago. The summer of 2022 was particularly hot, with temperatures going up to 40°C in many countries such as Spain, Italy, and even Belgium and the United Kingdom, which ultimately led to wild forest fires and severe drought across the continent.<sup>5</sup> Not to mention the many deaths caused by the intense heat.

So how is global warming actually linked to this change in weather patterns? The higher temperatures are intensifying the global water cycle because the atmosphere holds 7% more moisture for every 1°C increase.<sup>6</sup> This additional moisture intensifies the variability of the global water cycle, leading to the changing of seasons. These changes are, unfortunately, irreversible on centennial to millennial time scales.

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<sup>3</sup> [https://report.ipcc.ch/ar6syr/pdf/IPCC\\_AR6\\_SYR\\_LongerReport.pdf](https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_LongerReport.pdf)

<sup>4</sup> <https://www.ipcc.ch/report/ar6/syr/figures/summary-for-policymakers/figure-spm-3>

<sup>5</sup> <https://www.copernicus.eu/en/news/news/observer-wrap-europes-summer-2022-heatwave>

<sup>6</sup> <https://www.dw.com/en/fact-check-whats-the-link-between-global-heating-and-extreme-weather/a-62961131>



The altered weather cycles will thus bring their lot of extreme weather events, although not every part of the globe will be affected in the same

way. Once again, the regions that are the least responsible for global warming will be the most impacted. That is especially the case with the inhabitants of the Pacific islands, who will have to deal with rising sea levels, as well as tropical cyclones. Nonetheless, the rest of the world will not be spared by heat waves, extreme rainfalls, cyclones, tornadoes, winter storms and their consequences: droughts, wildfires, floods, destruction of infrastructures, and power outages, to name a few.



A picture from the floods that occurred in Eastern Belgium in July 2021

Source: [Wikimedia Commons](#)

The sad thing is that humans are not the only ones who will have to live through all those natural disasters. It will happen to all living creatures, from the biggest to the smallest, which is certainly not fair, since human activity is the main certified driver of climate change...

## 4.2 What causes climate change?

This is no secret. We have already mentioned times and times again that greenhouse gas emissions originating from human activity are the major culprit in the case of climate change. But how bad is it, actually? And in what exact ways do humans put pressure on the planet?

As it was explained in the previous chapter, we have adopted unsustainable patterns of production and consumption. Additionally, the overconsumption problem is also interdependent with the rapid growth in population in the last two centuries, as we went from 1 billion human beings in 1803 to 8 billion in 2023. More human beings means the need for more housing, more transportation, more food, etc.

With that many people on Earth, most of the production of goods has been industrialised. Therefore, industry and manufacturing account for a lot of the pollution that is leading to climate change. First of all, industries need energy in order to function, so a great deal of emissions happen because of energy consumption. Then, in the chemical and petrochemical industries, carbon dioxide can be emitted as a by-product from certain processes.<sup>7</sup> In other sectors like metal or plastic products manufacturing, extra air pollutants are released during the production process.<sup>8</sup> This dangerous cocktail of gases and toxic substances is causing a lot of damage to the atmosphere, allowing it to get warmer.

Humans also need to eat. Food production and agriculture are, in fact, responsible for 26% of greenhouse gas emissions, and not only carbon dioxide but also methane. This huge amount of emissions is due to the fact that farming methods have been industrialised and intensified in order to be able to produce

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<sup>7</sup> <https://ourworldindata.org/emissions-by-sector>

<sup>8</sup> <https://www.eea.europa.eu/themes/industry/industrial-pollution/industrial-pollution-country-profiles-2020/eea33>

food for 8 billion people. Furthermore, the industrialisation of agriculture is causing several major issues. One of them is land use. Right now, 50% of all habitable land is used for agriculture, which reduces soil diversity and accelerates habitat destruction for many species.<sup>9</sup> Another problem is the use of pesticides designed to increase harvests. Those chemicals lead to biodiversity losses and contaminate the land, thus contributing to further soil degradation. Lastly, a lot of resources are wasted at every step of the food production process, mainly during the production and consumption phases.<sup>10</sup>

Meat production is clearly one of the major issues regarding food because of the methane emissions it generates. Red meat is the most problematic. In the production of beef, methane accounts for half of the total emissions.<sup>11</sup> In 2010, emissions from beef and dairy cattle amounted to 5,024 million tons in CO<sub>2</sub> equivalent.<sup>12</sup> The meat industry also uses a lot of land (83% of agricultural land) and consumes a lot of water, namely for growing food to feed the cattle and also in the killing process. Fishing is not as harmful as livestock breeding in terms of greenhouse gas emissions, but it definitely also leads to biodiversity loss and the inevitable destruction of ecosystems.<sup>13</sup>



### Did you know?

- Cows release a lot of methane through burping and farting. One cow can produce up to 200 kg of methane a year. ([The Guardian](#))

<sup>9</sup> <https://ourworldindata.org/environmental-impacts-of-food>

<sup>10</sup> <https://www.unep.org/resources/report/waste-not-want-not-reducing-food-loss-and-waste-north-america-through-life-cycle>

<sup>11</sup> <https://ourworldindata.org/carbon-footprint-food-methane>

<sup>12</sup> <https://www.fao.org/gleam/results/en/#c303615>

<sup>13</sup> <https://ourworldindata.org/fish-and-overfishing#environmental-footprint-of-fishing>

Let us not forget transports, which are responsible for 16.2% of global emissions.<sup>14</sup> Road transport is the most harmful activity, amounting to 77% of the total transport emissions in Europe in 2020.<sup>15</sup> Many of those emissions come from traffic congestion. Following road transport as polluting activity, we find aviation and maritime transport, which are estimated to constitute a higher proportion of emissions by 2030.<sup>16</sup>

Humans are very active in terms of pollution, but most of all, the main behaviour that makes us responsible for the climate crisis is our political inaction. That might seem a bit ironic, but policymakers have been warned for a few decades of the dangers ahead of us, yet they did not take those threats seriously. The policies that are currently in place are not enough to put humanity on the right path. There are many more things that we could do in the hope of reducing humanity's carbon footprint and aligning with the more positive scenarios for climate change.

### 4.3 What can we do?

Now that we know about everything we are doing wrong and that action is the key, what can we do to make things right? While it is clear that the main changes need to happen on the global level, with governments finally taking responsibility, individual actions can also be undertaken to create a better living at the local level.

What kind of concrete actions are we talking about? The first thing that humanity would need in order to properly respond to the climate crisis is a global framework, a universal plan for action. Some policies have already been

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<sup>14</sup> <https://ourworldindata.org/emissions-by-sector>

<sup>15</sup> <https://www.eea.europa.eu/ims/greenhouse-gas-emissions-from-transport>

<sup>16</sup> Idem



implemented, but none of them has been fully able to bring the expected changes to our attitude as a society toward climate change.

27 Conferences of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), or COP for short, have been organised since 1995. The goal of the UNFCCC is to facilitate intergovernmental climate change negotiations, which is why they organised those 27 Conferences, in an attempt to support the global response to the threat of climate change.<sup>17</sup>

Although not all COPs have been a success, some have produced important results, such as the Kyoto Protocol in 1997 and the Paris Agreement in 2015. The Kyoto Protocol was the first to get countries to commit and adopt policies to limit their greenhouse gas emissions. Nowadays, 192 parties are still agreeing to that Protocol.<sup>18</sup> The Paris Agreement aims to limit the global temperature increase to 1.5°C. It was the first binding agreement to bring all nations together to limit the effects of climate change. 196 parties adopted it.<sup>19</sup>

However, the problem with these global policies is that they can also easily be overturned depending on who is in power in each country, as was the case when the United States elected a new president in 2016 who immediately decided to leave the Paris Agreement.<sup>20</sup> The country later rejoined the Agreement after the next election. So, even though effective policies are put in place, it only takes having a “climate change sceptic” at the head of a state, especially when the country in question causes a lot of pollution, to put the whole process in jeopardy.

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<sup>17</sup> <https://unfccc.int/about-us/about-the-secretariat>

<sup>18</sup> [https://unfccc.int/kyoto\\_protocol](https://unfccc.int/kyoto_protocol)

<sup>19</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement>

<sup>20</sup> <https://www.iisd.org/articles/insight/us-has-exited-paris-agreement-does-it-matter>



At the European level, the European Union’s strategy is called the “Green Deal”, launched in 2019, and its goal is for the EU to achieve carbon neutrality by 2050.<sup>21</sup> Carbon neutrality means balancing the emissions and the absorption of greenhouse gases. The plan also includes solutions to restore biodiversity and promote a circular economy. Nonetheless, each initiative has to be discussed by all Member States, which brings us back to the previous point.

Luckily, we do not have to wait for policymakers to agree on what to do to find our own solutions at the local level. Many communities have already taken their own initiatives in the fight against climate change and in the idea of living more sustainably. For example, groups have been formed around the world and joined the “Transition Network”, whose aim is to design and implement practical projects to help people transition to more sustainable lifestyles.<sup>22</sup> Project ideas range from shared gardens and repair cafés to community energy and housing.



Photo by Steve Adams - [Unsplash](#)

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<sup>21</sup> <https://www.consilium.europa.eu/en/policies/green-deal/>

<sup>22</sup> <https://transitionnetwork.org/about-the-movement/what-is-transition/characteristics/>

But before joining a group or a community, there are also many things we can do as individuals to reduce our ecological footprint! We already gave you a few examples of actions you can take in Chapter 2. Here are some more:

- ✓ Prevent food waste by planning your meals.
- ✓ Prioritise walking, biking, or taking public transport for short distances.
- ✓ Replace incandescent lights with LED lighting.
- ✓ Offer experiences rather than material gifts on special occasions.
- ✓ Repair your electronic appliances when possible instead of buying new ones.
- ✓ Etc.



The last example of something we can do is to raise our voice, to let it be heard that we want some change, just like Greta Thunberg and the young generations are doing. However, no matter how important it is to protect the environment, it is also necessary to protect ourselves so that we do not suffer too much from the psychological effects of the climate crisis.

#### 4.4 The need to protect ourselves from eco-anxiety

How much you might want to fight against climate change, you need to remind yourself that your own well-being is also important. The more you invest your time and energy trying to fix this global crisis on your own, the more you risk turning from eco-warrior to eco-worrier...

“Eco-anxiety” is an arising mental health problem that is mostly affecting young people between 18 and 24 years old. It is characterised by a deep feeling of uncertainty fueled by the impossibility to prefigure the future.<sup>23</sup> Eco-anxious individuals live with the awareness that catastrophic events are about to happen in the future and fear for their own survival. While it can lead to worse problems,

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<sup>23</sup> [https://www.pourlasolidarite.eu/sites/default/files/publications/files/ed\\_2022\\_leco-anxiete\\_chez\\_les\\_jeunes\\_4.pdf](https://www.pourlasolidarite.eu/sites/default/files/publications/files/ed_2022_leco-anxiete_chez_les_jeunes_4.pdf)



such as depression and generalised anxiety, it is also possible to recover from one's eco-anxiety and use it as a driver for climate action.

But the road to recovery is not that simple once one starts feeling stressed about the state of the environment. Let's analyse some of the symptoms of eco-anxiety, then some of the remedies!

As a youth worker, it might be useful to recognise the signs of an eco-anxious youngster. Some of those signs<sup>24</sup> include:

- 🌱 Sense of guilt regarding their actions and what impact they have on the environment
- 🌱 General feeling of distress or anger when the climate crisis is mentioned
- 🌱 Inability to focus on activities, schoolwork or relationships
- 🌱 Exhaustion caused by difficulties sleeping
- 🌱 Panic attacks



Once the problem has been identified, it's time to think about solutions to help overcome the anxiety. The first step is obviously to open the discussion about it, to create a safe space where young people can express their fears. Next, use emotional regulation strategies to help them see the threat as less urgent. Finally, remind them that they are quite low-ranked in the environmental responsibility hierarchy. This should make them realise that their individual actions are not the ones directly damaging the planet. Although, if the anxiety is too overwhelming, do not hesitate to suggest therapy.

On top of affecting young people, eco-anxiety is also affecting people who are vulnerable to the effects of climate change, like indigenous and marginalised

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<sup>24</sup> <https://www.ecoanxiety.com/what-is-eco-anxiety/>

social groups.<sup>25</sup> This has led to the rise of a movement demanding “climate justice”.

#### 4.5 What is climate justice? Why is it important?

The concept of “climate justice” combines climate action with a human rights approach.<sup>26</sup> It is based on the observation that the people who contributed the least to the climate crisis already are and will continue to be the ones who suffer the most.



Photo by RODNAE Productions - [Pexels](#)

What climate justice is trying to achieve is the recognition of the augmentation of structural inequalities in the context of the climate crisis. Social groups like women, people of colour, or low-income workers already deal with social and economic injustices that the climate crisis will progressively reinforce, leading to further marginalisation. For example, people who have a lower income often live in areas where housing is cheaper because the buildings are not properly

<sup>25</sup> <https://thegreenfix.substack.com/p/eco-anxiety>

<sup>26</sup> <https://www.unicef.org/globalinsight/what-climate-justice-and-what-can-we-do-achieve-it>

insulated, which makes them more vulnerable to climate risks (extreme cold and heat).<sup>27</sup>

As long as marginalised groups are not included in the decision-making process, their lives will more than likely not be taken into account. Climate action cannot only focus on solutions that are affordable only to wealthy people, such as driving electric cars or installing solar panels. It is important to engage and consult with local actors in order to ensure that everyone's voice is heard and that human rights are respected.

We already talked about the environmental problems surfacing in the Pacific Islands, but there are many examples of climate injustice that are closer to us. Go to this [link](#) to see examples of environmental injustice next to you.

#### 4.6 How can we achieve climate justice?

Making sure that human rights are respected all over the world is easier said than done... The United Nations Development Programme (UNDP) suggests that countries need the 5 following elements to help us achieve climate justice<sup>28</sup>:



- 🌍 A global acceleration of the environmental rule of law, to make sure that governments hold businesses and institutions accountable and respect the right to a clean and healthy environment for everyone.
- 🌍 Strong national legal frameworks, to help marginalised groups participate in the decision-making process regarding the management of natural resources.

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<sup>27</sup> <https://climate.mit.edu/explainers/climate-justice>

<sup>28</sup> <https://www.undp.org/blog/five-steps-environmental-justice>

- 🌍 Accessible justice and human rights institutions, to enable marginalised groups to access justice and information.
- 🌍 Gender equality in land management, to include women in the discussion.
- 🌍 Transformation of the way we think about the right to a healthy environment.

According to UNICEF<sup>29</sup>, it is also important to acknowledge young people's quest for climate justice and facilitate their access to funding and opportunities. After all, today's children and teenagers will be the first to be impacted by the effects of the climate crisis. Therefore, their participation in the decision-making process and the development of climate action should be more than encouraged.

The sure thing is that we can only achieve climate justice as a society. We can use individual action to raise awareness about this issue, but we definitely cannot restore justice on our own. With enough global effort, we might be able to provide the youth with what they need to develop useful skills and be empowered to take action as tomorrow's actors and leaders.

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<sup>29</sup> <https://www.unicef.org/globalinsight/what-climate-justice-and-what-can-we-do-achieve-it>

## 5. How is overconsumption related to climate change?



**“Climate crisis is the symptom, overconsumption is the disease”.<sup>1</sup>**

In this chapter, you will learn about the different impacts of overconsumption on the planet and how this behaviour is directly responsible for climate change.

As we already mentioned in Chapter 3, the current economic system is based on eternal growth and relying on overconsumption and overproduction, which is causing us to harm the environment by exceeding the carrying capacity and life-supporting systems of the planet and its ecosystems<sup>2</sup>. In other words, it is accelerating the rate at which we empty the Earth’s resources, such as energy, land and water. We extract, produce, consume and dispose of resources faster than they can regenerate.



### Did you know?

- At the current production rate, global material use could double to 190 billion tonnes (from 92 billion), while greenhouse gas emissions could increase by 43% by 2060. ([UNEP](#))
- At the current consumption rate, two-thirds of the world’s population may face water shortages by 2025. ([WWF](#))
- The total weight of everything that the human population has created between 1900 and 2020 adds up to 1,154 Gigatons (= 1154 thousand million metric tons). It is forming what we call the “anthropogenic mass”, as opposed to the “biomass”, the dry weight of all life on Earth, which is weighing 1,120 Gigatons. ([WEF](#))

<sup>1</sup> <https://overconsumption.friendsoftheearth.eu/>

<sup>2</sup> <https://www.eionet.europa.eu/gemet/en/concept/15382>

According to the *Global Resources Outlook 2019*, in the absence of urgent and concerted action, we will continue to create unsustainable pressure on the environment. If we keep following the same relentless patterns of production and consumption, we will witness the loss of more and more natural habitats. In Europe, grasslands are threatened because of intensive agriculture, while woodlands are threatened by forestry.<sup>3</sup> Both are also threatened by growing urbanisation. If those kinds of habitats disappeared, they would also cause the extinction of thousands of species of insects, plants, mammals, birds, trees, etc.<sup>4</sup>

Among the species that could disappear from our continent are the European sturgeon, already extinct in many areas, and the red-footed falcon, currently considered “critically endangered”. Needless to say, the extinction of any species is a huge loss to the related ecosystems.

Our implication in the degradation of the environment as individuals is indisputable. In modern societies, consumption has become a major sign of success since industrialisation. “The more, the better” has become mankind’s motto. We are constantly encouraged to buy more things for ourselves. Advertising is omnipresent in our lives, sometimes in very obvious ways, and sometimes, we may not even realise that we have been influenced into buying a certain item. Social media has indeed made it easier for companies to target our wants and needs so that they can constantly provide us with information about new products.

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<sup>3</sup> [https://ec.europa.eu/environment/nature/knowledge/pdf/terrestrial\\_EU\\_red\\_list\\_report.pdf](https://ec.europa.eu/environment/nature/knowledge/pdf/terrestrial_EU_red_list_report.pdf)

<sup>4</sup> [https://ec.europa.eu/environment/nature/conservation/species/redlist/index\\_en.htm](https://ec.europa.eu/environment/nature/conservation/species/redlist/index_en.htm)



Photo by Negative Space on [Pexels](#)

Has it ever happened to you? You are scrolling down your social media feed, and you come across an advertisement for an item that you made internet research about just a few hours earlier. You think, "How odd!" but in fact, this is anything but odd. It's targeted advertising! This applies to many different types of products, such as household items, clothes, cosmetics, jewellery, electronic appliances, furniture, and even food. It has also become very hard to spend a day on social media without encountering hordes of *influencers* trying to sell anything to their audience. This new type of marketers largely benefit from the recent development of e-commerce, which made it possible for us to buy anything, from any place, at any time.

The bottom line here is that overconsumption is truly a societal problem. Sure, it is not very sustainable to buy every new phone or shoe model made available on the market, especially when the previous one is still functional, but the real problem here is that new items are coming to the market at an extremely rapid pace in the first place. For example, fast fashion brands now release up to 52

micro-collections a year, compared to only 4 bigger collections a few decades ago.<sup>5</sup>

This phenomenon is part of the unsustainable system in which we are currently caught, called the “linear economy”. This model creates a vicious cycle in which we extract resources, produce goods (in huge quantities), distribute the goods, consume them (also in huge quantities), and then dispose of them either because they become obsolete or because they become replaceable, thus transforming them into waste. And then we start again, and again, and again... Until the Earth will actually become empty of all resources.

Indeed, producing and wasting this much requires huge amounts of energy and generates a lot of pollution. The numbers presented in the *Global Resources Outlook 2019* show that the extraction and processing of materials, fuels and foods make up about half of total greenhouse gas emissions. They are responsible for more than 90% of biodiversity loss and lack of clean water.<sup>6</sup>



### Did you know?

- Since the Industrial Revolution, humans have emitted over 1.5 trillion tons (= 1,500 billion) of carbon dioxide (also known as CO<sub>2</sub>) into the Earth's atmosphere. ([Kurzgesagt - Youtube](#))
- In 2021, the global amount of CO<sub>2</sub> emissions released in the atmosphere was 3,785,758,000 tons. The European Union was responsible for 277,493,000 tons of the total emissions. ([European Commission](#))

<sup>5</sup> <https://www.thegoodtrade.com/features/what-is-fast-fashion>

<sup>6</sup> <https://www.resourcepanel.org/reports/global-resources-outlook>



The amount of greenhouse gas emissions generated by a country's or an individual's actions is called the "carbon footprint", which is an important component of the "ecological footprint", i.e. how much humans rely on natural resources like food, land, fibres, timber, etc. The size of each country's ecological footprint varies greatly, as the use of natural resources is very unevenly distributed across the globe, in the same manner as consumption is also unfairly distributed, as the 1.2 billion poorest people account for only 1% of world consumption while the billion richest account for 72%.<sup>7</sup>

Thus, those who consume the most are the ones who pollute the most. The per capita impact of overconsumption in high-income countries is between three and six times larger than in low-income countries.<sup>8</sup> However, low-income countries, which bear little responsibility for the pollution of the atmosphere, are actually those who suffer the most from the environmental impacts of overconsumption. Imagine that you have a rich neighbour who likes to put on a light show in his garden, with thousands of light bulbs, and it consumes so much electricity that it is causing power shortages in the neighbourhood. How would you react?

Talking about those impacts, the current biggest threats to the environment are waste management and our use of energy, which both lead to air, water and land pollution. You will now learn in which exact ways they are harming the planet.

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<sup>7</sup> <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=893&menu=1561>

<sup>8</sup> <https://www.resourcepanel.org/reports/global-resources-outlook>



Photo by Tom Fisk on [Pexels](#)

First, let's talk about waste management. In a linear economy, every item produced becomes discarded at some point. We have organic waste, which decomposes easily thanks to microorganisms but, by doing so, emits large amounts of greenhouse gas (5% of global emissions<sup>9</sup>). Then, we have all types of inorganic waste, such as plastic, metal, and glass. Those do not contain organic compounds and consequently do not decompose, or at least not before a few hundred years. They are the ones that we, as individuals and as a society, are struggling the most to deal with. In most cases, they are collected and incinerated, which also causes major carbon emissions. When they are not collected properly, they can contaminate the water and soil. Two sad examples of this are the *Great Pacific Garbage Patch*<sup>10</sup>, a collection of marine debris polluting the Pacific Ocean and damaging marine life, and the "*Great fashion garbage patch*"<sup>11</sup>, an open landfill of old clothes rotting in the Atacama Desert in Chile.

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<sup>9</sup> <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/solid-waste-management>

<sup>10</sup> <https://education.nationalgeographic.org/resource/great-pacific-garbage-patch/>

<sup>11</sup> <https://www.nationalgeographic.com/environment/article/chile-fashion-pollution>

Another emerging problem is the disposal of electronic waste, or “e-waste”. Electronic appliances contain many hazardous substances that can provoke land contamination if they are not treated properly. Currently, only 17.4% of e-waste is recorded as being collected, treated, and recycled.<sup>12</sup> The rest is mostly buried or illegally traded and shipped to low-income countries, where the valuable materials will be extracted using methods like open-air burning, which is dangerous for human health and the environment.

Next, we need to talk about our use of energy. Since we are mostly relying on non-renewable sources of energy, the more energy we consume, the more energy we need to find. Unfortunately, as we already know, the Earth’s resources are finite, which means that, at some point, it will only become increasingly difficult to find new reserves of fossil fuels. In 2020, there was enough oil left to sustain us for 54 years at the current rate of production, and 49 years of gas.<sup>13</sup>

The whole process of extracting fossil fuels is harmful. But now, with the levels getting so low in the habitual reserves, some policymakers have turned to even worse methods, such as “fracking”. Fracking is a technique used to extract oil or gas from the ground by pumping water, sand, and chemicals into the ground to allow the fuels to be released from rocks.<sup>14</sup> This process, on top of leaking methane into the atmosphere, creates vast amounts of wastewater and releases toxic substances into the air.

Not only is mining for energy sources highly detrimental to the planet, but the worst part is the use we make of this energy. Food, mobility, housing, consumer goods, leisure, all those aspects of our lives rely on the use of energy and will continue to cause major greenhouse gas emissions, thus contributing to the

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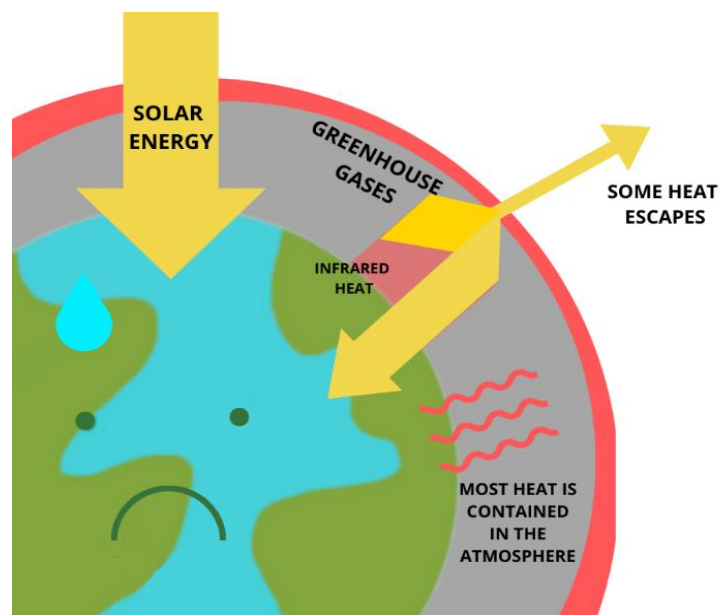
<sup>12</sup> <https://www.genevaenvironmentnetwork.org/resources/updates/the-growing-environmental-risks-of-e-waste/>

<sup>13</sup> <https://ourworldindata.org/grapher/years-of-fossil-fuel-reserves-left>

<sup>14</sup> <https://www.greenpeace.org.uk/challenges/fracking/>

climate crisis, as long as we are trapped in the overproduction/overconsumption pattern.

The emission of greenhouse gases such as methane and carbon dioxide into the atmosphere is, in fact, the prime cause of the rise in global surface temperatures. They are called “greenhouse gases” because they function on the same principle as a greenhouse. They absorb the Sun’s heat that emanates from the Earth’s surface and trap it in the atmosphere, thus making it warmer.<sup>15</sup>



Explanation of the “Greenhouse Effect”

Made on Canva

Increasing temperatures are the main environmental challenge that humanity has to face right now. We have long been warned by scientists that we need to limit the rise to 1.5°C in order to prevent catastrophic results from happening...

<sup>15</sup> <https://www.europarl.europa.eu/news/en/headlines/society/20230316STO77629/climate-change-the-greenhouse-gases-causing-global-warming>

## 6. Zero waste - Principal of 5R

This topic has not been relevant for a long time. Only in the last 10-15 years have people become interested in reduction and stagnation in their daily life. In 2013, Bea Johnson came up with the five Rs in her book *Zero Waste Home: „The Ultimate Guide to Simplifying Your Life by Reducing Your Waste.“* These are Refuse, Reduce, Reuse, Recycle, and Rot. This zero waste approach seeks to maximise recycling, minimise waste, reduce consumption and ensure that products are made to be reused, repaired or recycled back into nature or the marketplace.

This new 5 R's scheme drives us to deal with waste in our lives by helping us focus on our habits and consumption patterns.<sup>1</sup>



Presentation of all five zero waste rules  
Made in Canva

<sup>1</sup> <https://www.goodreads.com/book/show/15802945-zero-waste-home>

## 6.1 Refuse

Starting with refusing, say NO to all things you don't need, especially single-use plastics, such as straws, disposable coffee cups, plastic bottles and plastic bags. Instead choose to invest in their reusable versions like bamboo straws, coffee cups and bags for multiple use. It should be noted that even when buying such products you should pay attention to greenwashing!



Greenwashing is when an organisation spends more time and money on marketing itself as environmentally friendly than on actually minimising its environmental impact. Also say NO to promotional samples or junk mail. Avoid ordering food which almost always comes packed in a lot of packaging, unlike food you have prepared yourself!

Refusing can be hard, it is way easier to buy a coffee in a disposable cup than to remember to bring your own every time you leave the house, but with this step takes practice and a shift in mindset, especially in our culture of consumption.<sup>2</sup>

## 6.2 Reduce

Reducing starts with evaluating if you really need something before buying, then continues with decluttering which finishes with donation of all the things that are not useful anymore in our home. Decluttering can sometimes feel like an enormous task. Can be overwhelming to think we need to start from whole big rooms in our apartments. So it's one of the reasons why we give up before we even start. That is why when you make the choice to get rid of unwanted stuff, start small, pick areas you can tackle easily, like a handbag, one drawer (kitchen, bathroom) or a night stand. Decluttering your home is slow, sustainable work, it's not meant to happen overnight!

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<sup>2</sup> [https://www.biologicaldiversity.org/programs/population\\_and\\_sustainability/sustainability/live\\_more\\_sustainably.html](https://www.biologicaldiversity.org/programs/population_and_sustainability/sustainability/live_more_sustainably.html)

✔ Some tips to keep in mind when reducing of excess stuff:

If you need something only for a certain time, consider renting items you need, things like tools, catering supplies, camping gear, sporting equipment (like skis), etc. Buy second hand items whenever possible, for example for clothing or furniture. Sell or swap items on different apps like Facebook's MarketPlace. Definitely try to donate to charities especially when it comes to clothes. Sometimes people forget to reach out to local services in the area where they live. Local pre-schools might be in need of toys or kitchenware. Refugee centres, women's shelters, nursing homes, and animal humane societies are always in need of books, toys, clothing, furniture, and magazines. Local libraries, community gardens, and neighbourhood recreational centres are good places to call as well. It's worth the extra work!<sup>3</sup> As far as electronic waste is concerned, try to buy a new computer, phones, cell phones and other electronics only when you really need them. Electronic equipment should meet your needs, not trends! Also, donations are valid for electronic devices. Old but usable electronic equipment is given to schools, kindergartens, associations or charities. When it comes to reducing, people often forget about food, but one good tip is to reduce the intake of meat and meat products. The meat industry is, after the textile industry, the biggest polluter of the environment in the world!

Reducing not only results in saving more money but also saving time and becoming more efficient by alleviating physical and mental clutter.

### 6.3 Reuse

By reusing products we extend the life cycle of the things. By reusing, repurposing or upcycling we reduce the amount of produced waste, we have a positive impact on the environment and nature, but also on the social and economic aspects of society.

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<sup>3</sup> <https://www.msc.org/en-us/media-center/blog/news/2021/12/06/22-simple-tips-to-live-a-more-sustainable-lifestyle-in-2022>



✔ Some tips to keep in mind when reusing stuff:

As said, choose to buy second hand or visit antique stores. Try to go for exchange events where you get what you need for free and the person you gave your stuff gets what they were looking for too. It is a good idea to give your stuff as a gift to your friends and family and not to buy them, especially if you have what they need. Also, find some DIY (Do It Yourself) projects to transform stuff that no longer serves you into new usable things. This is a great way to learn, be creative and have fun, just breathe new life into old pieces of items! If you are wondering how to avoid food packaged in plastic packaging. It's not easy, but now there are more and more stores that sell their groceries in bulk, such as nuts, pasta, rice, lentils, etc. Always have the same containers and when they get empty, you simply refill them in the store.



Photo by [Annie Spratt](#) on [Unsplash](#)

Photo by [Javier Graterol](#) on [Unsplash](#)

Photo by [Linh Pham](#) on [Unsplash](#)

But, keep in mind that a reuse-oriented model is not always practical in its pure form. Certain requirements of people may lead to a system that does not meet the actual requirements of the user. In order to keep things light and small many manufacturers have to make custom components that are only standardised for their particular product. So, for example, when one laptop is replaced with a new model it can be near impossible to find replacement parts. There are some manufacturers that do not even have replacement parts for their own laptops so it's up to the laptop repair

technician to figure out an alternative repair method or simply declare it unrepairable. So, People who want to use a reusable component and repair the electrical device are not able to do so and they are not in control of the new version of the component because new components come with the new version of the device.<sup>4</sup> We can say that these things do not happen by accident, precisely because excessive consumption is supported and the latest components are not designed to be repaired!



## 6.4 Recycle

Recycling is the process of converting waste materials into new materials and objects. Learn what's the best way to dispose of your recyclables and recycle everything that you can!<sup>5</sup>

✓ Some tips to keep in mind when recycling:

### 6.4.1 Paper and cardboard

Paper and cardboard make up more than 20% of household waste. It is a very valuable raw material that fortunately, it can be easily used for the production of new paper and cardboard. This saves thousands of trees, but also saves energy and water. Do not dispose of contaminated paper and cardboard, for example with oil or leftovers of food because then it is non-recyclable. Crush the cardboard packaging before disposal or chop it up. In your household or at work, use today's easily available recycled paper.

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<sup>4</sup> <https://greatlakescomputer.com/5-reasons-why-laptop-repairs-are-more-difficult-and-expensive/>

<sup>5</sup> <https://www.thesca.org/connect/blog/how-recycle-and-why-you-should-do-it/>



Photo by [Etienne Girardet](#) on [Unsplash](#)


#### 6.4.2 Glass

Glass packaging makes up about 4% of household waste. Glass is one of the most ecological materials, since it can, unlike other packaging materials, be reused and used for the production of new glass practically countless of times. Empty and rinse the glass packaging before disposal. In addition to bottles, you can also put all kinds of jars.

#### 6.4.3 Plastic and metal

Plastic and metal packaging makeup more than 20% of household waste. Before placing the packaging in a container or bag, it must be emptied and rinsed. Whenever possible, it is recommended to choose plastic number 1, 2, 4 and 5 instead of 3, 6 and 7. If you want to recycle properly, do not dispose of numbers 3, 6 and 7 in plastic containers for collecting plastic, put them in the container for mixed municipal waste.

#### WHY IS THAT? <sup>6</sup>

 **Number 1.** PET or PETE - (Polyethylene terephthalate)

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<sup>6</sup> <https://koprivnica.hr/wp-content/uploads/2019/02/Vrste-plastike-i-kako-se-reciklira.pdf>

This is the most commonly used type of plastic that is intended for single use like plastic bottles for drinks. It can be easily recycled, whereby materials are obtained for new PET bottles or polyester fibres that are further used for textile production.

#### **Number 2.** HDPE - (High density polyethylene)

This type of plastic is most often recycled. It is also considered the safest type of plastic and is therefore suitable for multiple use. Since it is a durable plastic, it is also used in the production of items of wide use which require long-term durability and weather resistant conditions, like waste bins. This type of plastic is detergent, oil or juice bottles and toys.

#### **Number 3.** PVC- (Polyvinyl chloride)

Byproducts of PVC production are dioxides, chemically toxic dioxins. It is precisely for this reason that it is not recommended to heat food packed in PVC packaging, so that it does not come loose of these compounds. This is also the reason why these plastics are rarely recycled. even though there is wide use of this plastic from packaging, furniture, toys, car parts, medical devices down to building materials.

#### **Number 4.** LDPE - (Low density polyethylene)

A relatively safe type of plastic to use. It is possible to recycle, although in practice this has been poorly implemented so far. From low density polyethylene we make plastic bottles, bags, fabrics and furniture.

#### **Number 5.** PP- (Polypropylene)

PP plastic has good mechanical properties. It is solid, light and heat-resistant, which is why it is widely used. Although it can be recycled, data shows that the recycling rate is very low. We use it for the production of pipes, laboratory dishes, containers, fittings, casings, disposable diapers, packaging for yoghurt and margarine, bags for chips and straws.

## Number 6. PS- (Polystyrene)

One of the most commonly used types of plastic. Heating food in polystyrene plastic is not recommended because of the release of harmful styrene (This especially applies to heating food in a microwave oven). It can be recycled, but recycling of this type is poorly implemented. Plastic dishes, CD and DVD cases, cases for smoke detectors or insulation are made from this type.

## Number 7. Other (BPA, polycarbonate..)

This category includes all plastics that are not included in the previous groups. That's a very heterogeneous group for which there is no general recycling rule. The new generation of easily degradable materials also belongs to this group plastics, made from bio-polymers like starch, which usually comes with a "PLA" label or inscription "biodegradable" next to the symbol with the number 7.



Types of plastic - Made in Canva

As we said, plastic is one of the most common materials that make up household waste and unlike wood, metal or paper plastic loses its quality during the recycling

process. That means that new raw material must always be added to it in order to be usable again.<sup>7 8</sup>



### Did you know?

- 70% of new plastic is needed in the production of plastic bags from recycled material.
- Out of the 8,300 million tons of plastic, only 9% was recycled.
- There are 5 eddies of plastic in the sea, the largest is 3 times bigger than France!
- One truckload of plastic enters the ocean every minute.
- Toxic compounds from the environment bind to plastic material (microplastic) and are transferred to living organisms, ecosystems and through the food web.

#### 6.4.4 Electronic equipment

Electronic equipment contains heavy metals and dangerous substances, which requires proper disposal. Small electronic waste contains about 30% metal and 70% plastic. It is the world's fastest growing type of dangerous waste!

The thing to remember is that we must not dispose of EE waste together with other household waste. We must separate it and hand it over to authorised collectors or hand it over to a mobile recycling yard. Take electronic equipment to a recycling yard or contact an authorised collector of electronic and electronic waste in your city, municipality or county.

<sup>7</sup> <https://www.greenpeace.org/croatia/plastika-koju-vidimo-na-plazama-samo-je-5-oneciscenja-mora/>

<sup>8</sup> <https://www.np-brijuni.hr/hr/aktivnosti-parka/plastika-cinjenice-koje-mozda-niste-znali>





Photo by John Cameron on [Unsplash](#)

On that note the main thing to remember is recycle only what you can not refuse, reduce or reuse. Recycling comes as the last option! The reason is that we consume and dispose at a higher rate than we are capable of recycling. From the 50s onwards, plastic became ubiquitous due to its positive properties which is relatively cheap for production, light, waterproof, strong, flexible and usable in a very wide range of products. Its use is growing year by year. In 2010, 270 million tons of plastic were produced in the world, and in just six years, the amount grew to 335 million tons! The largest amount of plastic products is single use like bottles, bags, packaging and cutlery. All of this is creating a huge amount of waste - about 300 million tons per year, of which about 8 million tons end up in the sea. Once produced plastic remains in the environment practically forever, it is considered that the time required for decomposition of a plastic bottle is for about 450 years, disintegrating into smaller and smaller parts called microplastic and nanoplastic. These particles end up in marine organisms and ultimately on our table.

## 6.5 Rot

Biowaste makes up 1/3 of household waste. When buying food, don't buy too much. Plan meals, prepare a detailed shopping list. Sometimes it is not easy to stick to the



list, but just by writing it you will already reduce unnecessary food or buy less quantity and avoid food spoilage. When cooking, do not serve too large portions of food or save for later and eat the leftovers.

Composting is the natural process of recycling organic matter, such as leaves and food scraps, into a valuable fertiliser that can enrich soil and plants. Anything that grows decomposes eventually, composting simply speeds up the process by providing an ideal environment for bacteria, fungi, and other decomposing organisms, such as worms. Compost is rich in nutrients and can be used for gardening, horticulture, and agriculture.

To make your own compost it doesn't matter if you live in a tiny apartment in the city or on a farm, composting options are available to you. With composting we save money, we protect the environment and we recycle nutrients. Here are some rules that should be followed.<sup>9</sup>

✔ Find an ideal place for the composter

The best place is on a soil base somewhere in a semi-sunny place. At home, separate kitchen waste into a container with a lid. The container should be close to us in the kitchen. Every day or two we take it to the balcony or somewhere where we placed the compost.

✔ Composting process and use

Mix the right ingredients and fill the composter. Like sawdust or pieces of wood to start with, then our kitchen waste. The process lasts from 6 to 9 months until we get a dark, crumbly mixture with an earthy smell called humus. The pile should be shaken occasionally.

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<sup>9</sup> <https://www.nrdc.org/stories/composting-101#whatis>

## ✔ Green and brown waste

There should be one layer of green waste and one layer of brown. Let's say 50 % green and 50 % of brown waste.

Green waste is rich in nitrogen, it accelerates decomposition and ensures humidity. Into green waste can belong fruit and vegetable scraps, grass clippings, tea bags, old flowers, coffee grounds or egg shells.

Brown waste is rich in carbon and it slows down rotting and ensures ventilation. This is cardboard, egg cartons, crumpled paper, dry leaves, sawdust, straw, hay, twigs and tree bark but never meat, fish, all cooked food, dairy products, animal excrement, diapers, diseased plants, walnut leaves, painted and varnished wood, organic waste that has been affected by pesticides, oil or paint.

These are all natural resources that we have in limited quantities and we need to use them wisely so that future generations can achieve the same quality of life as we try to have today.



Photo by [Markus Spiske](#) on [Unsplash](#)

## 6.6 Tools for youth workers

In the following we will show you an example of event organisation. The concept is good to follow for most events you organise. In this case, it is explained in detail how to organise a workshop/event of making a beeswax food wrap.

Always think globally and act locally. Try to organise an event in your city. If you don't know where to start and this is your first time, try contacting local associations that work on similar topics and offer your ideas. You will almost never get a rejection, on the contrary, these associations love the initiative and interest of young people, and are always ready to help.

### When planning an event

- ✓ Set the date and time of the event
- ✓ Determine the location. What is the size of the space? How many people can you accommodate?
- ✓ Write the list of the required materials
- ✓ Where to get the material? Who can help you?
- ✓ How much material do you have? How many people can you accommodate considering the material? Will people work individually or in groups?
- ✓ Make a presentation of 5 to 10 minutes as an introductory part
- ✓ Advertise the event. How will you advertise this event? Instagram? Facebook?
- ✓ Come up with a text
- ✓ Prepare a paper for the list of participants and their emails
- ✓ Take pictures and videos of the event

### Materials you need

- Cardboard
- 100% cotton fabric
- Irons
- Baking paper
- Bee wax in granules

#### 6.6.1 How to make beeswax food wrap

The most important thing is that the fabric is made of 100% cotton, and that the wax is shredded. If you don't have a way to bring a lot of such material, ask the participants to each bring one of their own fabric that they will turn into a beeswax food wrap! We need a table and that we are close to an electricity connection. We start by placing the cardboard on the table to prevent damage. We need two baking papers for one wrap. We put the first baking paper on the cardboard, put a cotton fabric on it and sprinkle it with wax. It is important to capture all corners and the entire fabric. Then, we put the next baking paper and we can start using the iron and melting the wax over it. After we have dissolved each granule, we separate the baking paper from the fabric and the product is finished and ready to use!

✓ An interactive presentation should contain:

1. In the beginning use the opportunity to shortly introduce participants to the principal of 5R

2. Make an introduction to beeswax food wrap and answer on why is it important to make it, for example like this:

„Beeswax food wraps are pieces of 100% pure cotton fabric impregnated with wax and are used for wrapping food like bread, fruit, nuts, vegetables, sandwiches or cheese. It serves to keep the food fresh. It can also be used to cover the container where the food is, so it can preserve it more. The point of making this cover is to

reduce disposable plastic and aluminium foil in our daily life. Aluminium foil is very harmful because aluminium particles can end up in the environment and food. Beeswax wrap is a biodegradable and environmentally friendly product. Can replace plastic containers, foils and bags in the kitchen. So with this workshop we show in a practical way not only how to reuse products but also how to reduce waste."

3. Write method of maintenance and use, for example like this:

„It is not recommended to cover and wrap meat and meat products, fish and sour dishes. Wash them in cold water with soap and let it dry. The place where you are holding them should be dry and not on a heat source. Remember not to cover hot and warm meals and do not put them in the microwave or dishwasher. Good thing is that we can restore them by putting them in the oven at 70°C. If you use it correctly, one wrap can last up to a year."

4. In the presentation you can also attach a short video on how to do it just for easier understanding of the participants.

This tool is good for working with young people because it gives them an opportunity for practical participation and seeing on the spot how easy and fun it is to reuse objects. Also, it gives them a theoretical and practical way to reduce their waste. To involve young people spread the word about the event in schools, youth clubs, colleges. Post on social networks that are closest to young people (Like instagram). Associations that work with young people can also help you here. they have their mailing lists of members who might be interested, they also have mailing lists of local news, such as newspapers and radio. That way people can easily be informed. such topics are current and hardly anyone will refuse to write an article or host you on the radio on the topic of ecology.

### Desired outcomes of the workshop

- ✓ Participants will be able to distinguish between the 5Rs
- ✓ Participants will be able to explain why reusing is important
- ✓ Participants will be able to apply methods of reducing and reusing in everyday life
- ✓ Participants should want to share what has been learned and implement the same workshop in their local community

That would be it! This is one example for organising an event and it turned out that this way is the easiest and with the best outcome. Of course, it is always allowed to change and arrange in the way you like, for example to add various quizzes and games. Everything is allowed to arouse the curiosity of the participants. Awaken your creativity!



Finished product - beeswax food wrap

Photo by Green Istria

## 7. What can young people do to live more sustainably

### 7.1 The basic steps for education on sustainability

Embarking on the path of sustainable development also requires young people to transform how they think and act. They need knowledge, skills, values and tools that will make them more determined to contribute to sustainable development. Sustainability education therefore is crucial to empower young people to make informed decisions and act responsibly for environmental integrity, economic sustainability and a just society for present and future generations. The tools available should be stimulating and practical, concretely showing the consequences, negative and positive, of their behaviours. Alongside the traditional lessons, digital tools, gamification, outdoor learning and tinkering are helpful, allowing students to learn in a fun way, becoming active participants and agents of change.

They should be aware that, without disrupting their habits too much, they can commit to sustainability as early as now. This process involves four basic steps:

- **Know the 17 Sustainable Development Goals posed by Agenda 2030 and be aware and convinced that we are all part of the change.** The UN has set up a board game within its institutional website to help young children become familiar with the 17 Sustainable Development Goals and understand them in their deeper meaning. Go-Goals is a goose game in which players must reach the 2030 goal by moving through 63 boxes (<https://go-goals.org/> )
- **Be aware of the global and local benefits of pursuing these goals and the risks of not achieving them.** Young people need straightforward, direct



language, but above all, they need to have a hands-on, experience-oriented approach.

- **Be informed about what to do to help achieve them**, what lifestyles are best and what individual actions make a difference. It can stimulate them to make them protagonists, including focusing on concrete actions to work on and commit to one or more goals.
- **Foster mechanisms that make young people themselves promoters of change** in their communities and promoters of a more sustainable lifestyle.

## 7.2 How can we contribute to change?

Helping young people discover how it is possible to do their part is crucial. The approach we propose starts by identifying some central issues, concerning which young people should know how it is possible to increase their sustainability and that of their families through simple actions that can be easily implemented in their daily lives. Indeed, it is a matter of taking a conscious attitude to one's resource use and consumption, identifying and containing everything that generates waste.

Concerning the actions we propose below, it may be helpful to ask young people, "In your daily life, do you think you already have the right behaviour concerning this action? If yes, tick the corresponding box, and at the end, count how many sustainable actions you are already implementing and how many you can still improve!"

## Proper use of water

### 💧 Turn off the water when not needed

For example, you should turn off the water faucet while soaping your hair with shampoo, or when brushing your teeth while brushing or shaving. To better understand the extent of waste, just consider that between 8 and 10 litres of drinking water per minute can come out of an open faucet.

### 💧 Installing jet breakers at faucets

Also called aerators, they are small, simple devices costing just a few euros that mix air and water in a way that reduces the amount of water consumed. This is a simple, inexpensive, and effective way to save water immediately.

### 💧 Prefer showering to bathing

To maximise water savings, again, it is a good idea to turn off the faucet while you are soaping up. Also, as pleasant as it is, one should only linger as necessary under the jet of water because several litres of water are consumed unnecessarily in a few minutes.

### 💧 Reuse water whenever possible

Sometimes water used can be reused instead of throwing it away. For example, air conditioners always produce condensation that can be used to wash floors. Also, since it is limestone-free water, it can be used for ironing. On the other hand, water leftover from washing vegetables can be used to water plants on the balcony or terrace.

### 💧 Proper use and moderation of toilet flushing

Dual push-button toilet flush cisterns allow you to select the right amount of water for each need.

### 💧 Repair water leaks (and report them when found)

A leaky faucet, though little in appearance, can cause a considerable waste of water. According to some estimates, 90 drops of water can come from a tap in one minute, equivalent to 4 thousand litres per year. Particular attention should be paid to the toilet flush because it can have water leaks that are underestimated but can result in wasting dozens of litres of water per day. Sometimes, a leaky faucet or drain is found at a school or a bar. It is good to report this so those in maintenance can take action.

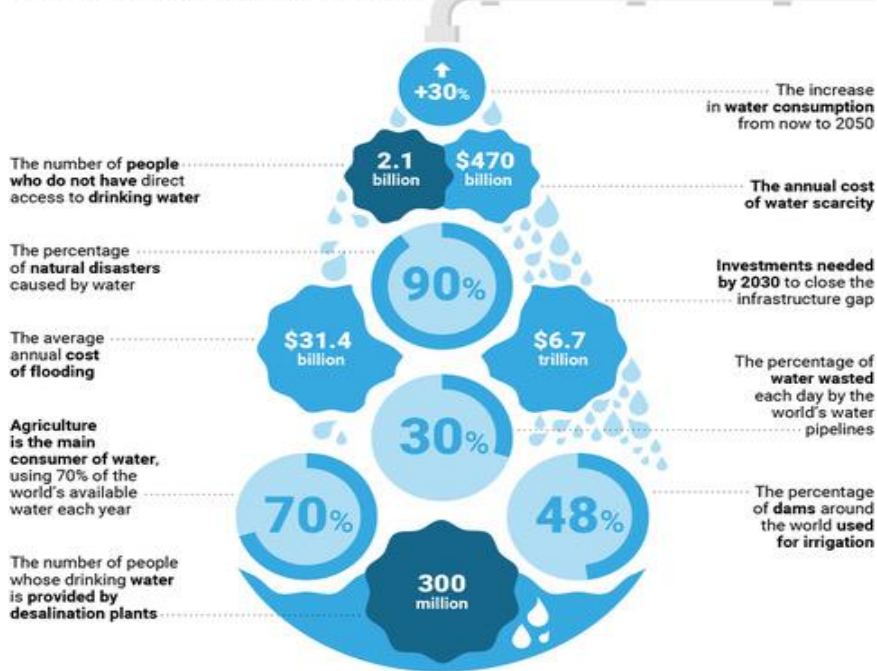
### 💧 Washing vegetables inside a container

Instead of using running water, filling a container and washing the vegetables inside it is better. This water can also be reused for watering plants in the garden or terrace to decrease drinking water consumption aimed at watering flowers and ornamental plants.

### 💧 Collecting cold tap water while waiting for hot water

Often, while waiting for hot water to come out of the tap, people let cold water run, even waiting a few minutes before the desired temperature is reached. Instead of wasting it, cold water can be collected and reused for washing floors, watering plants or any other household chores, just place a basin under the faucet.

## TEN FACTS ABOUT WATER SCARCITY



Sources: the World Bank, Unicef, United Nations World Water Report, the American Society of Civil Engineers, the International Desalination Association, International Commission on Large Dams, Global Water Intelligence

## Waste: Reduce, Reuse, Recycle

- 👉 Buy products that have low-bulk packaging

To decrease the waste, paying attention to the purchase time is necessary. Packaging is often used for promotional purposes only. Therefore, it is preferable to buy products contained in low-bulk packaging. The sale of detergents and soaps on tap is becoming more popular. This is an excellent way to limit the use of bottles for disposal!

- 👉 Choose the "family size"

If the products you buy do not have a short-term expiration date, it is best to avoid "single-serving" products as they need to be packaged individually, causing more packaging waste to be disposed of.

➤ Avoid buying plastic tableware or disposable products

For example, plastic bottles are a significant source of pollution; it would be optimal to get used to using a water bottle.

➤ Prefer durable, repairable and interchangeable products

For example, use cloth shopping bags instead of plastic bags when grocery shopping can reduce plastic consumption.

➤ Reducing the volume of waste

Reducing household waste affects not only its quantity but also its bulkiness. Compressing the volume of garbage, for example, by pressing down plastic bottles or cans, allows dumpsters to hold more waste and garbage trucks to make fewer trips.

➤ Pay attention to the proper packaging

Products such as beverages or preserved foods are packaged differently (glass, plastic, tetrapak). The containers with the less impact on the environment are those that are:

- ✓ reusable several times (e.g., a bottle is preferable to a can)
- ✓ made of recyclable material or sourced in whole or in part from recycling
- ✓ made from a single material or from several materials that can be easily separated
- ✓ made through processes that require reduced use of raw material and energy



Direct knowledge is often more valuable than many words, which enables more awareness. So, it can be helpful:

- ✔ Raising awareness of virtuous realities that give new value to waste or discarded materials

For example, there are companies where waste oil becomes biodiesel; where organic waste is transformed into substances for the production of bioplastics; where animal manure is helpful for energy production; where building materials are produced using waste and natural raw materials.

- ✔ Raising awareness of the processes that allow plastics, cardboard, organic waste, etc., to be given new life

For example, composting is a practice that, imitating nature's cycle, allows organic waste from the kitchen and garden to be disposed of independently. In composting, organic matter is transformed into compost, a soil ideal as a natural (non-chemical) fertiliser. Making and operating a compost bin is also a suitable experience for young people, who can learn experientially that something very useful can be obtained from their organic waste: soil regeneration!



## Energy consumption

- 💡 Turn off lights when not needed or not present
- 💡 Don't use the elevator if you can avoid it
- 💡 Close doors to prevent heat loss
- 💡 Use devices at home that recharge with solar power
- 💡 Do not leave electronic devices on charge for longer than necessary
- 💡 Turn off electronic devices when not in use
- 💡 Allow clothes to dry naturally after washing

There are many useful devices on the market in our homes that run on solar energy. For example, lamps that have a solar panel that you can charge during the day and use at night. By now, it is also possible to install photovoltaic panels on the balcony of your home, which obviously help reduce household or school electricity consumption.



- ✔ Moreover, at school, an eco-friendly idea is to keep a class energy diary to estimate and report energy consumption daily

This will enable young people to become aware of the massive amount of energy we constantly consume with our daily activities and compare the weeks with each other to achieve lower energy consumption!

## Food and sustainability

- 🍏 Consume foods while respecting their seasonality

In this way, it is possible to reduce greenhouse crops and related environmental impacts, as well as sourcing and transportation costs from distant countries.

- 🍏 Favouring local products

This helps support the local economy and significantly lowers pollutant emissions by limiting freight transport over long distances. Added to this essential benefit is seasonality, synonymous with good, natural cultivation that preserves the well-being of the land.

- 🍏 Valuing the fruits of the earth

This thus makes it possible to dispense with fishing and intensive livestock farms, which are highly harmful to the environment because they require much water consumption.

- 🍏 Consume less and better

Although malnutrition is still a reality in an important portion of the planet, overconsumption of food is widespread worldwide.



## Did you know?

- An estimated 88 million tons of food are wasted in Europe, 53 % of which is household waste. Buying what you need, and helping yourself with a simple shopping list, is a key aspect of not throwing anything away and giving the right value to every food item.

### Buying in bulk

It allows you to reduce packaging and optimise the packaging to be disposed of. A virtuous circle that moves toward sustainability in every aspect of life. From the food we eat to the waste we produce.



FAO, the Food and Agriculture Organization of the United Nations, defines sustainable food as food with reduced environmental impact that meets

nutritional guidelines from the perspectives of affordability, accessibility, and cultural acceptability.

Thus, sustainability also applies to food: a more conscious choice of food and the clever use of resources can make all the difference in an age of high consumption.



### Did you know?

- Our consumption behaviour causes an average of 14 tons of CO<sub>2</sub> per capita per year! Food affects the human ecological footprint by about 26 per cent. If the consumption of low-impact foods (grains, fruits, vegetables) were encouraged worldwide and food waste was reduced by 50%, the ecological footprint would decrease by 16%, delaying Overshoot Day by 42 days!

<https://data.footprintnetwork.org/#/>

Making matters worse in terms of environmental impact is the overproduction of meat, which, compared to plant products, requires much more land and energy. Knowing the impact of foods on environmental health provides insight into how it is possible to eat well, feel better and place less of a burden on the planet's well-being. Choosing foods that protect environmental resources makes it possible to reduce waste, minimise water, soil and energy consumption, and prefer nutritional security while respecting biodiversity.

### Air and green care

- Take care of green spaces in your neighbourhood or school
- Give preference to environmentally friendly means of transportation whenever possible
- Use recycled or FSC paper

A creative and fun idea can be to redevelop the school's green areas through the creation of a small vegetable garden. Get rid of weeds and revitalise the soil to sow crops that can be made available to the school cafeteria.

### **Becoming agents of change**

Making oneself an advocate for a sustainable lifestyle among one's peers and in one's family, telling them about one's contribution to the realisation of the Agenda 2030 goals, also using social, word-of-mouth or other channels is an equally important action.

"It is very little that the single person can do to change the world. It is a drop in the ocean. But the sea, too, is made up of many drops. It is enough for each one to bring his own." (Don Carlo Gnocchi).

