



**ERASMUS+ YOUTH EXCHANGE**

# **Eco-Friendly Youth**



**GEORGIA,  
BAKURIANI  
25/04 - 07/05 2022**



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## WHAT DID WE DO?

This booklet has been carried out in the scope of the Youth Exchange **Eco-Friendly Youth** which is funded by the Erasmus+ program of the European Commission.

The project took place in Bakuriani, Georgia from the 26th of April to the 6th of May 2022. It was led by the Belgium organization **New Horizons** and hosted by the Georgian youth organization **Umbrella**.

## WHY DID WE DO IT?

The goal of the project was to bring 30 participants from 6 countries together to promote a green lifestyle by exchanging good practices.

Nowadays it is more important than ever to adopt a green lifestyle. The small changes can help reduce the pollution that threatens our health and our environment, while also protecting our natural resources. The main objectives of the project are as follows:

- Equip young leaders with competencies, creative tools, and methodologies for the promotion of a healthy lifestyle in both their professional and personal lives
- Identify the non-eco habits in the youth work process and develop ideas, tips, and hints for changing them into eco-friendly via mini-blogs series
- explore digital tools (programs, mob apps, etc) in promoting an eco-friendly lifestyle
- share and mix the experience of visual, digital skills, eco-friendly practice and create intellectual visual outcome(s) (booklet and e-visual resources - posters, videos, pics, etc) for the further dissemination

## HOW DID WE DO IT?

The booklet provides answers to the main aspects of why equipping people with eco-habits is important and how it is possible to develop eco-responsible behaviors. It features relevant and effective tools for developing a healthy lifestyle and outdoor and online campaigns with their subsequent results and outcomes.

## WHO DID IT?

The booklet has been created by the participants of the youth exchange and has been designed by the team of facilitators. The participants' names and countries are provided below.

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## **PARTICIPATING ORGANIZATIONS**

Voluntary Service Of Armenia - HUJ (Armenia)

New Horizons (Belgium)

Cultural Heritage (Bulgaria)

Umbrella (Georgia)

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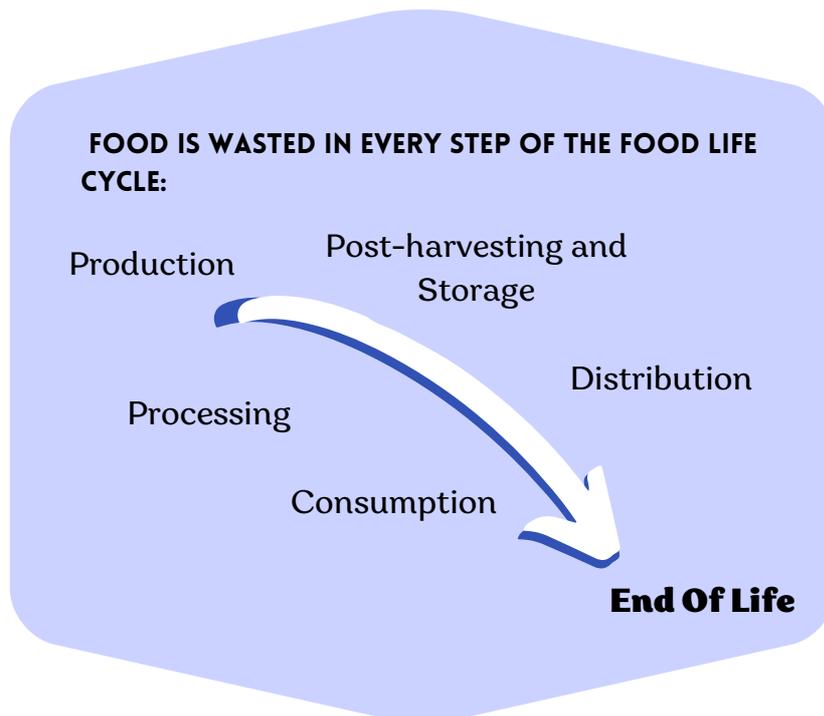
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This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use, which may be made of the information contained therein.

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# FOOD WASTE

FOOD WASTE IS ALL THE FOOD THAT IS NOT EATEN. ROUGHLY A THIRD OF THE WORLD'S FOOD IS WASTED, 35% OF WHICH IS PERFECTLY EDIBLE FOOD. THAT'S ABOUT 16 BILLION TONS OF FOOD A YEAR.



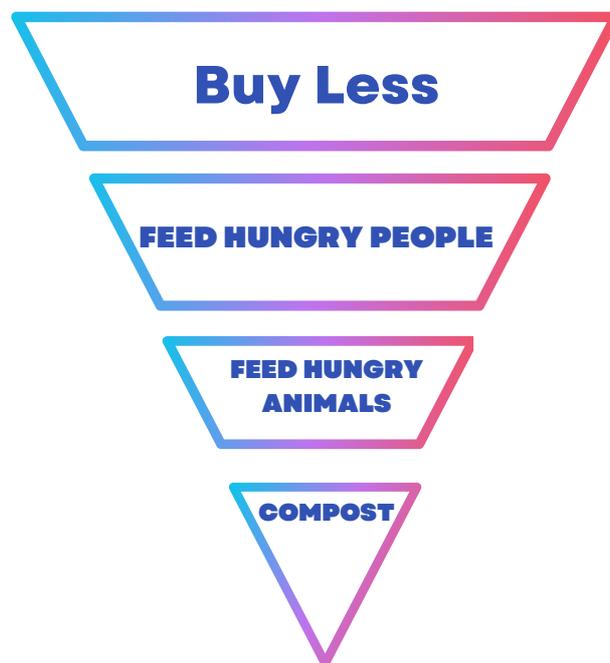
There are several reasons which lead to this amount of waste. There are reasons that are the responsibility of corporations and food-producing companies. Huge amounts of food are thrown away because of company pickiness and irresponsible harvesting. However, the food waste chain continues when it reaches customers as well. Consumers are responsible for 25% of food waste globally. Even though compared to food-producing companies the amount is not that big, however, it is still around 400 million tons of food a year.

## PROBLEM 1 | OVERBUYING

One of the reasons for food waste in the consumption step is overbuying. People tend to buy more than they are able to consume, which leads to food waste. Supermarkets and big shops, maintain specific conditions for each of their products in order to be able to keep them fresh as long as possible, while in households, consumers don't maintain these conditions, or simply are not able to. This means that products are better off at supermarkets than stored at homes.

## IN ORDER TO REDUCE THE AMOUNT OF WASTE ON THE CONSUMPTION EDGE, WE HAVE TO FOLLOW AN ACTION PYRAMID:

**Solution 1** | We need to start buying in **smaller amounts** and pay attention to product storage instructions. It is highly recommended to buy only the amount of food you are going to eat for the upcoming 3-7 days maximum. The food may get rotten if not consumed in the predefined period of time, which will be a waste of edible food. Also, the study shows that 80% of Americans throw away food because of misunderstanding the expiration labels. It is better to be attentive to expiration dates and differentiate “Recommended consumption date” from “Expiration date”.



Too Good To Go



**Solution 2** | Another solution for reducing edible food waste is feeding hungry people and sharing the food you don't need. There are several practices that work the best for sharing your food.

- **Share your food locally**
- **Use special programs/groups**
- **Contact organizations**

Firstly, try sharing your food in the areas near you. Talk to your neighbors, relatives, and friends to see if any of them need the food. It is always better to share your food in your local areas.

Second, look for programs and groups for sharing food in your country/region. There might be specific applications like “Too good, to go”, where you can share that you have spare food, and people will buy it from you, or take it for free, depending on your choice.

Third, you can always contact organizations that help homeless people and people in need. You can share your food once in a while or even do it on regular basis.

**Solution 3** | Another solution to reduce food waste is feeding hungry animals. You have to research before giving your food leftovers to animals, in order to not hurt them or harm their health. You can feed animals in your neighborhood by yourself. You can find organizations or vet clinics that have animal shelters and would be happy to take food from you.



**Solution 4** | One of the best solutions for food waste is composting. There are two ways of composting:

- **Bokashi System**
- **Worm Composting**

Bokashi system is easy to use for households, the compost from this method is good to use for home plants, and small yards. You need to get your food leftovers together, layer them with bran, leave for a couple of days, drain the juices produced by the food and then use your compost.

Worm Composting, on the other hand, is better for bigger yards, farms, and more diverse plants. For this option, you will additionally need to buy/collect worms. After getting your food together in a bin, you have to mix it well and add your worms. They will eat the food and when it exits their body they will have a highly fertilized mass, which you can use.



BOKASHI SYSTEM



WORM COMPOSTING

# Summary

To sum up, you always have a better option than throwing away your food. You can share it with others, give it to animals, or compost it, in a way convenient for you. It may appear to be small, but together we can have a huge impact.



The **Armenian** team was responsible for the topic of Food waste.  
Credits: Ani Khosrovyan, Elen Pavleyan, Anna Andranikyan, Svetlana Ghulunts, Eric Harutyunyan.

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# MICROPLASTICS



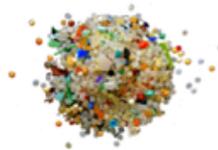
DO YOU KNOW THAT PLASTIC CANNOT DEGRADE COMPLETELY?

What is left from the process of degradation are small pieces called **microplastics**. A microplastic piece has a size of no more than 5mm – when the size is smaller (less than 100nm) it is called **nano plastic**.

## Macroplastic



## Microplastic



## Nanoplastic



These pieces can be found everywhere in our environment – in the water we drink, the air we breathe, and the food we eat. Microplastic pieces are especially prevalent in bigger cities, polluted areas, and industrial zones.



Microplastics are transferred via the plastic packaging of food products, the materials our clothes are made of, the plastic bottles we store our water or cosmetics in, and so on. Some cosmetic companies even put additional microplastic pieces in their products – face and body scrubs, toothpaste, or shower gels.



Oceans and water bodies are heavily polluted which adds to the problem – the equivalent of **30 billion 500ml water bottles** can be found in the world's upper ocean.

With the spread of microplastics everywhere around us, no wonder why **there are also microplastic pieces in our bodies**. Our weekly intake of microplastics is equivalent to one credit card and annually we consume 4000 pieces of microplastics just from tap water!



The negative effect that microplastics can have on our health include increased risk of **cancer, neurotoxicity, damage to red blood cells, and hormonal problems**.



## SOLUTIONS



### HOW CAN WE STOP THE SPREAD OF MICROPLASTICS?



**WE CAN USE LESS PLASTIC PACKAGING**



**STOP USING PLASTIC BOTTLES, BOXES, AND OTHER PLASTICS CONTAINERS**



**BUY CLOTHES MADE WITH ORGANIC INGREDIENTS**



**RECYCLE PLASTIC**



**REDUCE THE USE OF SINGLE-USE PLASTIC**



**MAKE YOUR OWN COSMETIC PRODUCTS WITH ORGANIC INGREDIENTS (E.G. TOOTHPASTE, BODY SCRUB)**



One of the major solutions to the microplastic problem is **replacing plastics altogether**. Some innovative companies have already developed impressive plastic replacements that can reduce the spread of microplastics.

Organic plastic alternatives that are currently being developed make use of the following resources:



**Seaweed**  - The company (**Notpla**) that uses this organic ingredient offer a replacement for single-use small packaging mostly for food or consumables

**Mycelium**  (mushrooms) - Companies using mushrooms involve **Magical mushrooms**, **Grown bio**, and **Biofab**. Their technology provides a strong, heat resistant, and biodegradable replacement of plastic showing promising results and giving a wide spectrum of applications.



**MAGICAL  
MUSHROOM  
COMPANY**

The **Bulgarian** team was responsible for the topic of Microplastics.  
Credits: Tsvetina Ivanova, Manol Grigoriev Chitadze, Kaloyan Apostolov,  
Kateryna Ocheretniuk, Mariia Kocherhan

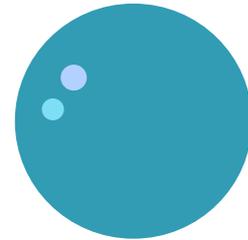
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# WATER FOOTPRINT

## PROBLEM AND STATISTICS

Water is OUR most valuable resource:

- 97% **ocean water**
- 2% **Icecaps**
- 1% **Drinking water**



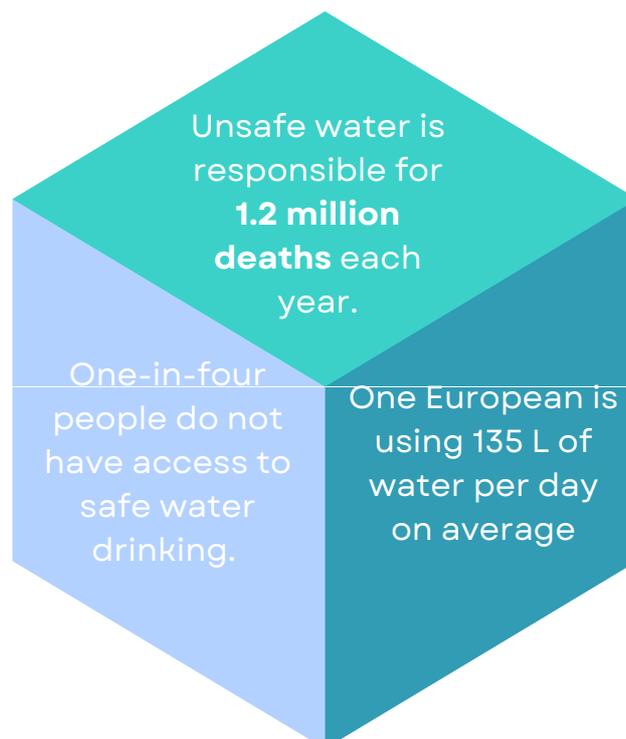
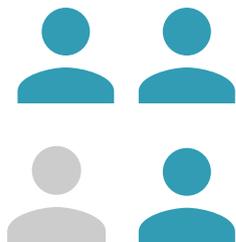
How many days can one survive without water?

- You can survive just **3 days without water.**



How many percentages of the earth's population did not have **access to clean water?**

In 2020, 6% of the world population did not have access to an improved water source.



BEFORE COVID-19

DESPITE PROGRESS,  
**BILLIONS STILL LACK**  
WATER AND SANITATION SERVICES



**2.2 BILLION PEOPLE**  
LACK SAFELY MANAGED  
DRINKING WATER  
(2017)



**4.2 BILLION PEOPLE**  
LACK SAFELY MANAGED  
SANITATION  
(2017)

COVID-19 IMPLICATIONS



**3 BILLION**  
PEOPLE WORLDWIDE  
LACK BASIC HANDWASHING  
FACILITIES AT HOME  
↓ ↓ ↓  
THE MOST EFFECTIVE METHOD FOR  
COVID-19 PREVENTION



**TWO IN FIVE**  
HEALTH CARE FACILITIES  
WORLDWIDE HAVE  
**NO**  
SOAP AND WATER OR  
ALCOHOL-BASED  
HAND RUB  
(2016)



**WATER SCARCITY**  
COULD DISPLACE  
**700 MILLION PEOPLE**  
BY 2030



SOME COUNTRIES EXPERIENCE  
**A FUNDING GAP OF 61%** FOR ACHIEVING  
WATER AND SANITATION TARGETS



Take cold showers



Use low-flow showerheads and faucets



Reduce the consumption of meat



Re-use water, collect the water from the shower

Collect rainwater



Use energy-efficient laundry washing and dishwasher and load them to their maximum



Use a shower timer



Close the tap while soaping up

TIPS



# TOP 10 OF THE WATER-EATER

We calculated how many liters of water is required for each of the following food per kilogram:

Chocolate	17 196 L
 Coffee	15 897 L
Beef meat	15 415 L
Cashew	14 218 L
Pistacchio	11 363 L
 Tea	8 856 L
Almonds	8 047 L
 Lentils	5 874 L
Pork meat	5 677 L
Hazelnut	5 258 L

The **Belgium** team was responsible for the topic of Microplastics.  
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Julien Claeys, Celie Denez

[CLICK HERE FOR MORE TOOLS & RESOURCES ON THIS TOPIC](#)

# WASTE LITERACY

Recycling the waste we produce could significantly decrease the human footprint on the environment and climate crisis.

In order to do this, we need to know what and how to recycle.

Did you know that each product/item has its specific code to be recognized for recycling?

- Those are small codes stamped onto plastic, glass, metal, organic, paper, and other products that help us to separate properly without mistakes.
- Codes consist of numbers and short abbreviations of the chemical ingredients or the name of the waste, but sometimes it only has either just a number or just an abbreviation



## Plastic Recycling Codes



**PET**

**PET** or **PETE**, is the most commonly recyclable type of plastic that can be found in food and drink containers, bottles, etc



**HDPE**

High-density polyethylene (**HDPE**) is the recyclable, non-transparent type of plastic used to produce shampoo bottles, yogurt containers, and more.



**PVC**

Polyvinyl chloride (**PVC**) is used in most children's toys, is more difficult to recycle, and has dangerous containments such as suspected carcinogens.



**LDPE**

Low-density polyethylene (**LDPE**) is soft and flexible, and can commonly be found in thin plastic bags.



Polypropylene (**PP**) is also very difficult to recycle and needs to be carefully checked. It can be found in straws, soft-drink cups, and other food containers like utensils.



Polystyrene (**PS**) is not a recyclable type of plastic unfortunately commonly spread and used in everyday takeout containers.



**OTHER**

**Other** -Includes plastics not included in the previous six categories, including BPA, polycarbonate, and bio-based plastics



## Glass Recycling Codes

Mixed Glass (GL-70)



**GL**

Clear Glass (GL-71)



**GL**

Green Glass (GL-72)



**GL**



However, other kinds of glass, like windows, ovenware, Pyrex, and crystal are not recycled



# Paper Recycling Codes

Most paper products can be recycled. However, dirty or greasy paper, along with laminated paper, cannot be recycled. There are three types of paper recycling codes:



PAP

Cardboard (PAP-20)



PAP

Mixed Paper (PAP-21)



PAP

Plain Paper (PAP-22)



# Metal Codes

Almost all metals are recyclable among them the most common are:



FE

Steel



compostable  
waste logo

Aluminium



ALU

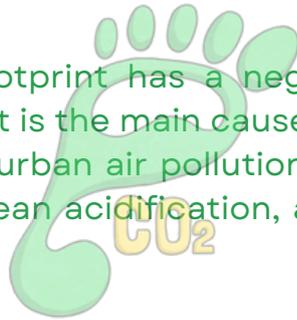
The **Georgian** team was responsible for the topic of Microplastics.  
Credits: Ketevan Tvalavadze, Mirian Kebuladze, Soso Amonashvili, Dia Nakopia

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# PERSONAL FOOTPRINT

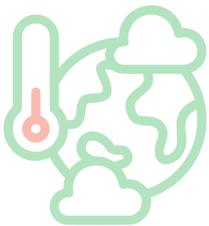
## Carbon Footprint

Our carbon footprint has a negative impact on the environment in multiple ways: It is the main cause of human-induced climate change, it contributes to urban air pollution, it leads to toxic acid rain, it adds to coastal and ocean acidification, and it worsens the melting of glaciers and polar ice.



## Climate Change

Climate change is altering our planet, causing extreme weather events like tropical storms, wildfires, severe droughts, and heatwaves, negatively affecting crop production, causing disruption to animals' natural habitats, and more. Because the emission of greenhouse gasses is the main perpetrator that causes global warming (and therefore climate change), it's important to understand how carbon and other greenhouse gas emissions affect the environment. After all, if we don't understand the impact of carbon emissions, then how can we change what we're doing and save the planet?

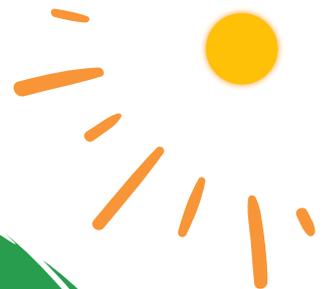


### Greenhouse Effect

Maybe you remember the greenhouse effect from school. Let's start there: The greenhouse effect is the natural process of how the sun warms the Earth's surface. When greenhouse gasses release into the atmosphere – these include carbon dioxide, methane, nitrous oxide, ozone, and water vapor – and trap the sun's heat, they warm the average global temperature, causing it to rise. This is known as global warming.

What should happen is that infrared radiation escapes into space, but instead, it gets trapped in our atmosphere and warms the planet.

Carbon emissions are one type of greenhouse gas emission that happens when carbon dioxide enters the air after a human activity or process. They are crucial to this conversation because they are the most significant type of emission in terms of quantity.



## The 3 Principles of Sustainability

The principles of sustainability are the foundations of what this concept represents. Therefore, sustainability is made up of three pillars: **the economy, society, and the environment**. These principles are also informally used for profit, people, and the planet. We will focus on “People”, as we will learn about habits individuals can have to be more sustainable. Understanding that even the smallest action can change the world.

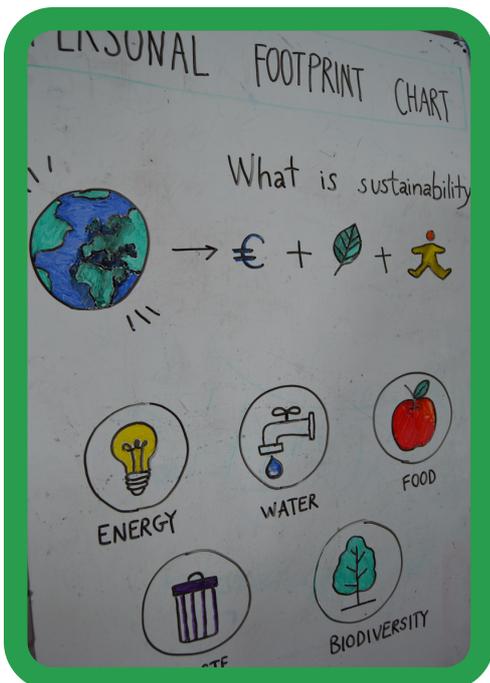
Here are some resources you can use to track your carbon footprint:



FOR  
YOUR  
WORLD



Earth  
Hero



## SOLUTION / TIPS

How to reduce your carbon footprint:



### Energy:

- Change all of your light bulbs to LED;
- Plug large electronics into a smart power strip;

### Water:

- Install a low-flow head on your shower and tap;
- Use a shower timer;

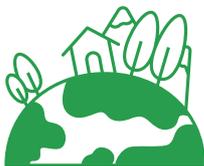


### Food:

- Compost your food and yard waste;
- Shop at your local farmers market;

### Waste:

- Separate your waste and follow the protocols of proper recycling;
- Ditch plastic bags, bottles and other single-use plastics;



### Biodiversity:

- Plant native plants;
- Preserve natural fauna;

The **Portuguese** team was responsible for the topic of Microplastics.  
Credits: Inês Pereira, Benjamim Almeida, João Pojo, Rita Sousa, José Cardoso

[CLICK HERE FOR MORE TOOLS & RESOURCES ON THIS TOPIC](#)

# CONSUMERISM

## Consumption

**Overproduction** is the production of goods that exceeds the needs of the consumers who are consuming them. It was the leading cause of the Great Depression – factories and farms produced more goods than the people could afford to buy, so prices fell, factories closed their doors, and workers were laid off, which led to a seemingly endless cycle of poverty and want.

**Overconsumption** is what happens when an ecosystem can no longer sustain the use of its resources. It strips the earth of natural resources, such as forests, fish, soil, minerals, and water, which collapse ecosystems, ruin habitats, and endangers the survival of countless species that contribute to an intricate, vibrant circle of life.

## Fashion industry



Fashion production makes up 10% of humanity's carbon emissions, dries up water sources, and pollutes rivers and streams. What's more, 85% of all textiles go to the dump each year (UNECE, 2018), and washing some types of clothes sends a significant amount of microplastics into the ocean.

## Food consumption

Food waste produces 3.3 billion tons of carbon dioxide, a greenhouse gas that contributes to climate change. If food waste were a country it would be the third-largest emitter of greenhouse gases after the US and China. By the year 2050, the world's population will increase 33% to 10 billion.



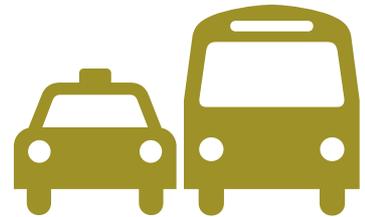


## Plastic industry

The world now produces more than 380 million tonnes of plastic every year, which could end up as pollutants, entering our natural environment and oceans.

## Transport

Globally, transportation accounts for between 15 and 20 percent of emissions each year. Motor vehicles are the leading cause of air pollution, though other modes of travel, such as planes and cruise ships, create greater emissions per voyage per person.



**WE ARE CURRENTLY USING UP THE RENEWABLE RESOURCES OF 1.7 EARTHS — UNLESS THINGS CHANGE, WE'LL NEED THREE BY 2050**



Source: Global Footprint Network

## What are sustainable production and consumption?

Sustainable production and consumption can be defined as the production and use of products and services in a manner that is socially beneficial, economically viable, and environmentally benign over their whole life cycle.

### LINEAR ECONOMY

Take  
↓  
Make  
↓  
Use  
↓  
Waste



### RECYCLING ECONOMY

Take  
↓  
Make  
↓  
Use  
↓  
Waste

Recycle

Recycle



### CIRCULAR ECONOMY

Take  
↓  
Make  
↓  
Use  
↓  
Waste

Recycle

Repair

Reuse

Return



## What can I do to change it?

### Apply the 5 R's



**Refuse:** Say no to what you don't need.



**Reduce:** Letting go of things that are no longer of use and donating or selling. It also means only focusing on necessary purchases.



**Reuse:** Switching disposable items for reusable and permanent alternatives.

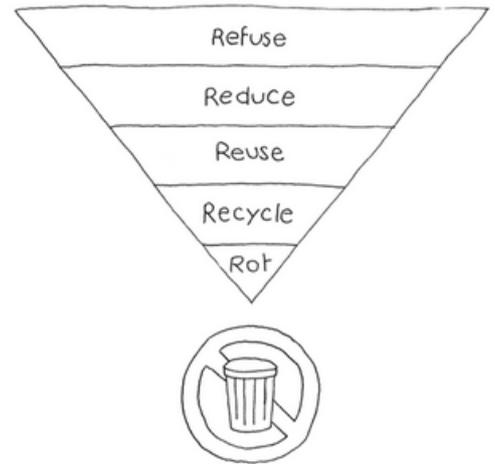


Recycle: We've been made to believe that recycling is the go-to solution for waste reduction. In fact, it's number four in the list behind refuse, reduce, and reuse.



Rot: Compost your own household waste or take part in a composting program for organic waste

The Five Rs can't and won't be a silver bullet to solving our waste problem (and subsequently bringing down our levels of carbon emissions), but they do offer a more fleshed out framework for thinking about the objects we bring into our lives and how we dispose of them. Awareness, perhaps, is a good first step.



Try to apply in your life these 3 simple habits (click video)



The **Ukrainian** team was responsible for the topic of Microplastics. Credits: Viktoriia Makaroba, Diana Abbasova, Alina Narli, Ollha Brusko, Anastasiia Kostenko

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# Cigarette butts gallon



Cigarette Butts as Litter – Toxic as Well as Ugly



4 500 000 000 000  end up in the environment every year!

They release more than 5000 chemical compounds! Cigarette butts are not biodegradable. Damage to nature:



Ingestion by animals



Reducing plant growth



Poisoning soil



Poisoning water

## SEE WHAT WE DID TOGETHER FOR CHANGE

During an activity with the children of the **Borjomi Youth Center**, we made gallons of cigarette butts. We reused the big plastic , metal , , , wall to fix it, and decorations to pay attention.



The six beautiful gallons have been placed in heavily trafficked locations.

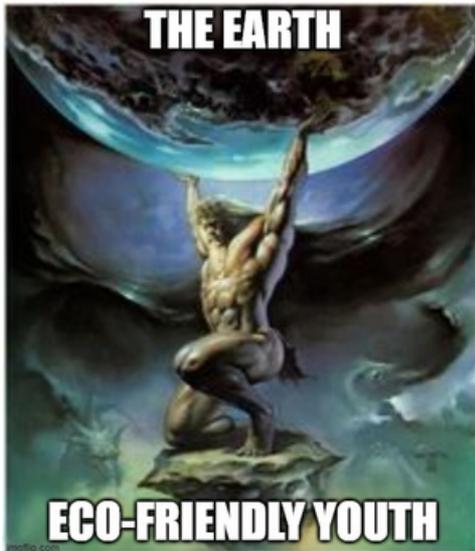


# CONCLUSION

As a result of the Youth Exchange Eco-Friendly Youth, the participants improved their competences in eco lifestyle & habits and became potential eco habits **promoters** at both online and offline spaces.

Local **actions** show that many young people (at least in Georgia, Bakuriani) are not aware of many eco habits that is important to encourage sustainable living.

The booklet is a useful **tool** for the youth workers and young people to deepen their knowledge in eco-friendly habits and better understand that small changes can help reduce the pollution that threatens our health and our environment.



Thanks for reading this booklet, please spread in your social media channels to give as many young people as possible the opportunity to improve their health condition