



climatechampions
local learning communities



BECOMING A CLIMATE CHAMPION
SDG 12 Responsible Production and Consumption



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A circular diagram illustrating the Circular Economy. The central text reads "Circular Economy". Surrounding this are four colored arrows forming a circle: a green arrow at the top labeled "Re-use/Repair/Recycle", a blue arrow at the bottom labeled "Production", an orange arrow on the left labeled "Distribution", and a pink arrow on the right labeled "Consumption". A vertical green arrow on the right side is labeled "Recycling sector". The background is light green with a stylized landscape at the bottom. A white box with orange text "WELCOME!" is overlaid on the right side of the diagram.

WELCOME!

This module is part of the Climate Change Community Champions course, and is dedicated to responsible production and consumption.

We will explore questions like:

- The dangers of overproduction of solid waste and overconsumption of energy, water and food
- What is circular economy?
- Sharing some good practices on responsible production and consumption

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01

Overproduction and
Overconsumption must stop





YouTube Channel: "U&i Global"

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

THE GLOBAL “MATERIAL FOOTPRINT”

INCREASED BY 70%

BETWEEN 2000 AND 2017



1 MILLION
PLASTIC DRINKING BOTTLES
ARE PURCHASED
EVERY MINUTE



5 TRILLION
SINGLE-USE PLASTIC BAGS
ARE THROWN AWAY
EACH YEAR

ELECTRONIC WASTE
CONTINUES TO PROLIFERATE
AND IS NOT DISPOSED OF RESPONSIBLY

EACH PERSON

GENERATED ABOUT
7.3 KILOGRAMS
OF E-WASTE



(2019)

BUT ONLY
1.7 KILOGRAMS
WAS RECYCLED



DEVELOPING COUNTRIES
STILL HAVE VAST UNTAPPED POTENTIAL
FOR RENEWABLE ENERGY

NEW RENEWABLE ELECTRICITY CAPACITY



880 WATTS PER CAPITA
DEVELOPED COUNTRIES

- 4X -



219 WATTS PER CAPITA
DEVELOPING COUNTRIES

DESPITE PROGRESS, **FOSSIL FUEL SUBSIDIES** CONTINUE TO THREATEN THE ACHIEVEMENT OF THE PARIS AGREEMENT AND 2030 AGENDA



\$432 BILLION IN 2019

A DECLINE OF 21% FROM 2018



Overproduction of solid waste





* SDG12 GOALS on solid waste

- By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- By 2030, achieve the sustainable management and efficient use of natural resources



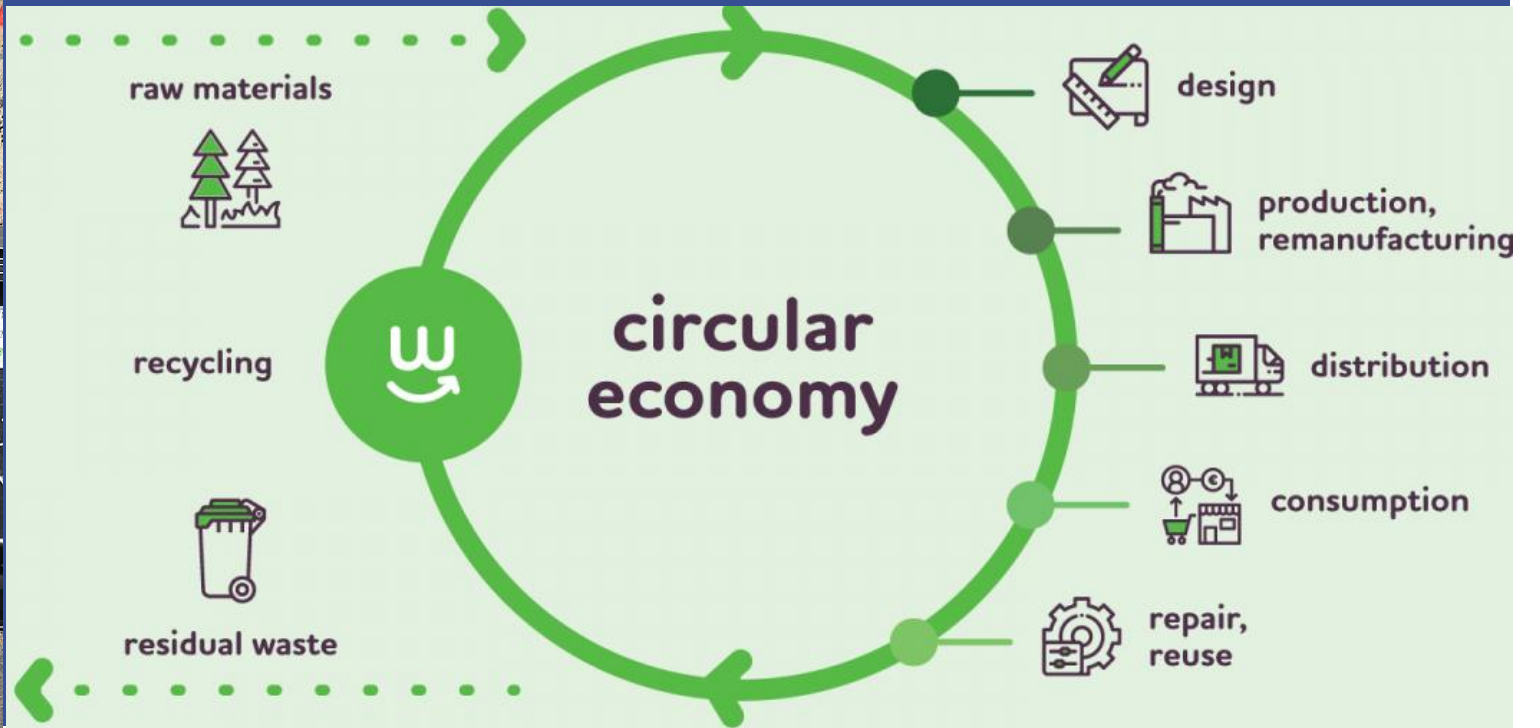
Nine Alarming Facts about Single Use Cups

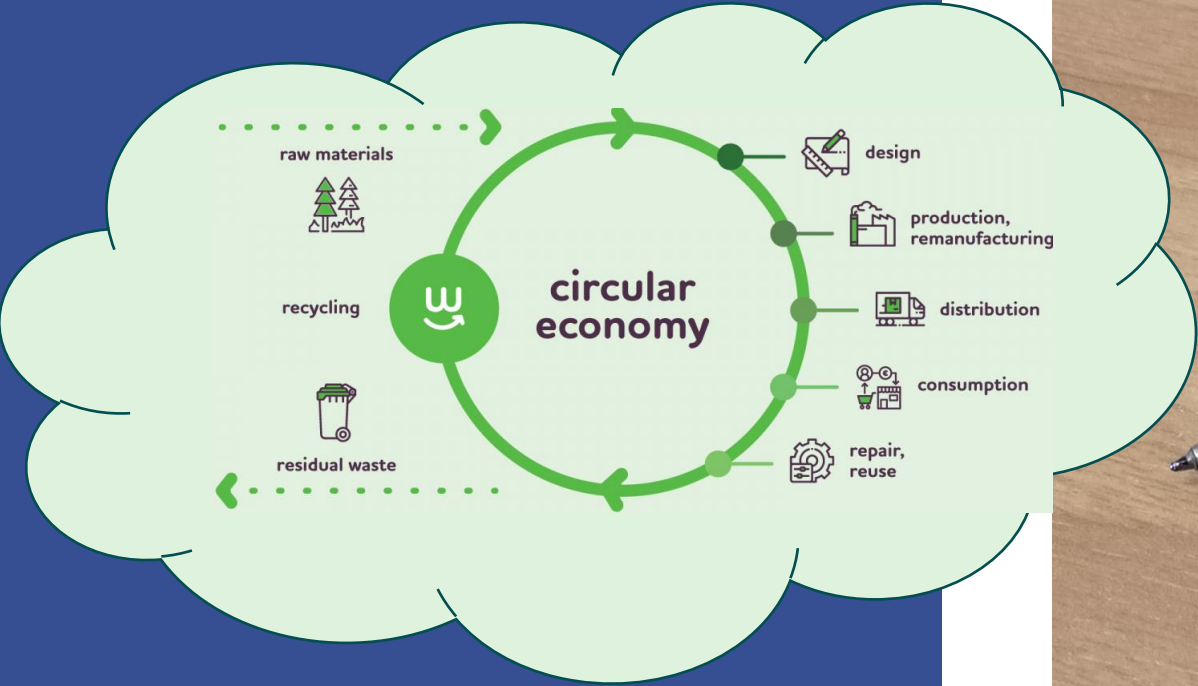
1. Disposable paper cups contain 5% polyurethane plastic, making composting and recycling of disposable cups extremely rare
2. Half a trillion disposable cups are manufactured annually around the world; that's over 70 disposable cups for every person on the planet.
3. Most plastic used in the world today is for single-use items.
4. 4 billion trees, or 35% of the total trees chopped down, are used in paper industries
5. 1 tonne of paper consumes 98 tonnes of resources in manufacture.
6. Globally, we consume nearly 300 million tonnes of paper each year; most made from virgin pulp.
7. Very little recycled paper is used to make disposable cups due to health risk concerns.
8. 70% of the world's paper comes from diminishing forests, not from plantations or recycling
9. Consumer waste has increased more than tenfold over the 20th century, from 40kg to 560kg of waste per person, per year.





What is circular economy?





Overconsumption of energy, water & food



Photo source:

<http://www.ethnos.gr/greece/article/73544/ptolemaidastakagelaoikatoikoigiathnapolignitopoihshtsperioxhss>



| SDG12 DATA on energy consumption

- Despite technological advances that have promoted energy efficiency gains, energy use in OECD countries will continue to grow another 35 % by 2020. Commercial and residential energy use is the 2nd most rapidly growing area of global energy use after transport.

What do we use energy in our homes for?

- Heating / Cooling
- Light
- Cooking
- Warm water
- Electric & electronic devices



SDG12 DATA | In 2002 the motor vehicle stock in OECD countries was 550 million vehicles (75 % of which were personal cars). A 32 % increase in vehicle ownership is expected by 2020. At the same time, motor vehicle kilometers are projected to increase by 40 % and global air travel is projected to triple in the same period.



SDG12 GOAL * Rationalise inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts [...]"

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





| SDG12 DATA on Water Consumption

- Over 1,000,000,000 (1 Billion) people still do not have access to fresh water.
- Excessive use of water contributes to the global water stress.
- Water is free from nature, but the infrastructure needed to deliver it is expensive.

Photo source: athensmagazine.gr



According to predictions by the United Nations and the World Bank, drought could put up to 700 million people at risk of displacement by 2030.

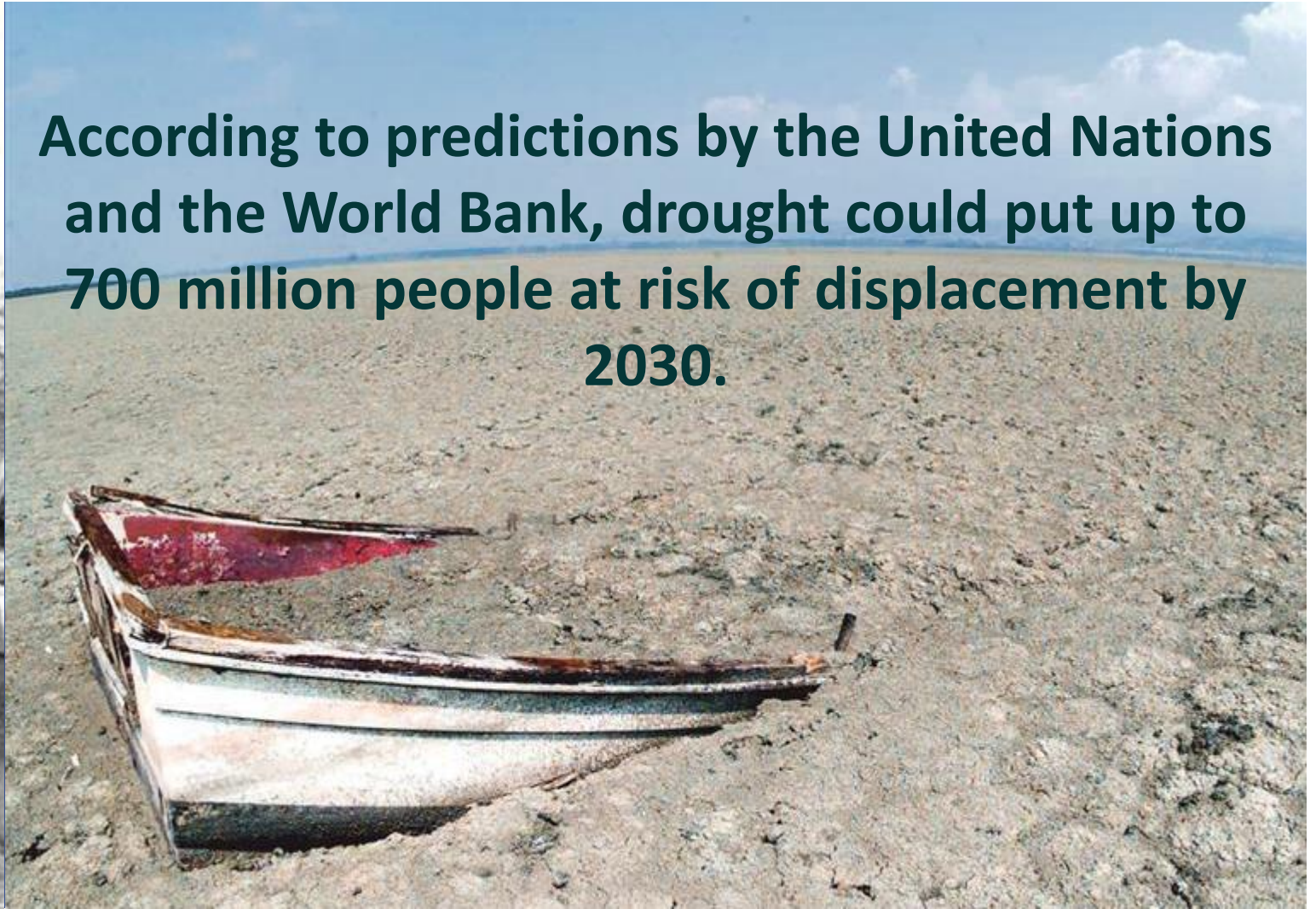


Photo source: athensmagazine.gr





| SDG12 DATA on food waste management

- **Each year, an estimated 1/3 of all food produced – equivalent to 1.3 billion tons worth around \$1 trillion – ends up rotting in the bins of consumers and retailers or spoiling due to poor transportation and harvesting practices.**
- 2 billion people globally are overweight or obese
- **Land degradation, declining soil fertility, unsustainable water use, overfishing and marine environment degradation are all lessening the ability of the natural resource base to supply food.**



✦ SDG12 GOAL on Food Waste Management

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.



SDG12 | DATA on Environmental Impact of Tourism

Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.

* SDG12 GOAL on Reduction of Chemical Use

By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil.

* SDG12 GOAL on Increasing Awareness of Multinational Companies

Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

02

What can we do?





Individual response to tackle solid waste

- ✓ Use less plastic (bags, coffee cups, food containers, single-use items). Plastic comes from petrol.
- ✓ Use less paper (bags, coffee cups, food containers, single-use items, office material). Paper comes from trees.
- ✓ They both eventually end up in landfills or the ocean.





- ✓ Try buying 2nd-hand fashion items or simply use your clothes longer.
- ✓ Try repairing old clothes and shoes or learn how to tailor your own. It is creative and relaxing.
- ✓ Recycle everything you can (glass, paper, tins, batteries, light bulbs, electronic devices, tires, organic waste, old clothes/furniture and plastic).



YouTube Channel: "U&i Global"



How can we reduce energy consumption in our homes?

< T I P S >

- ✓ Set indoors temperature moderately in cold and hot weather
- ✓ Use cooking energy tips
- ✓ Avoid using the washing machine half empty and the dryer
- ✓ Switch off lights and stand-by mode
- ✓ Buy energy efficient devices and light bulbs





Individual response on traffic reduction





On energy consumption (SDG-7)

Natural gas is less environmentally harmful than petrol (it emits zero SO₂, less NO_x) and coal (zero PMs).

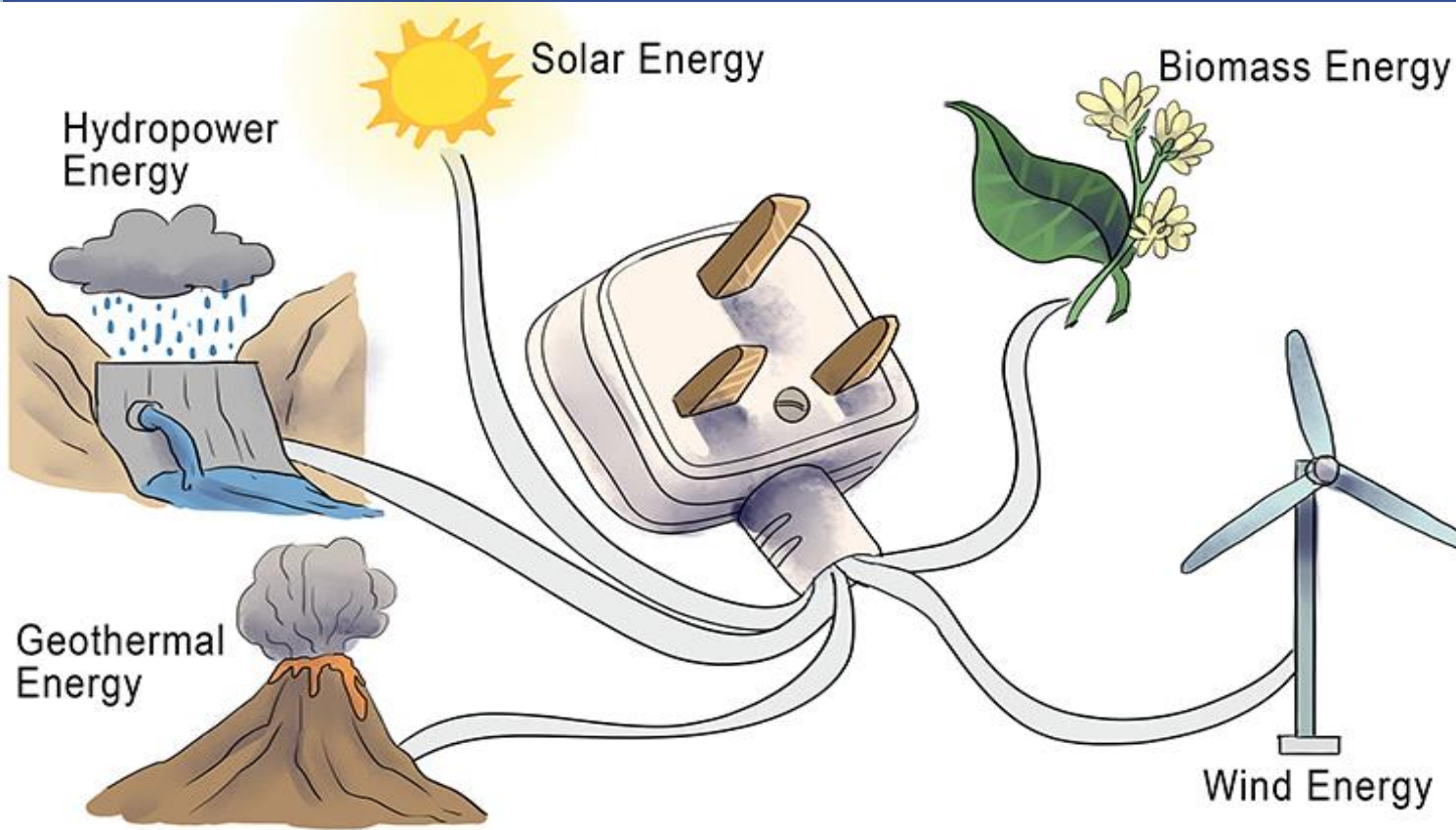
Electricity for heating (heat pumps) and for mobility is normally more environmentally friendly.

Renewable Energy Sources are the only sustainable option we have today.





Renewable Energy Sources





Individual response on water overuse

Value water.

- Don't leave the tap on while taking a shower, brushing your teeth and washing the dishes.
- Avoid filling the bathtub.
- Use washing machine programs that save water.
- Don't water the garden at midday.
- Don't wash the car in excess.

Ways of saving water in agriculture and forest lands

- ✓ The use of saving water irrigation techniques in agriculture
- ✓ Small forest dams that serve as reservoirs in dry periods and as firebreaks



HOW TO SAVE FOOD

- Become thrifty with food**
- Don't waste it at home or in restaurants.
 - Don't buy more than you can consume.
 - Buy local.
 - Avoid food out of season
 - Shorten the supply chain.
 - Prefer bio.
 - Don't avoid spots on food products.



HOW TO SAVE FOOD

- Neither throw food away nor consume more than your body needs.
- Avoid meat overconsumption.
- Our health is precious.
- Grow your own food and supply your neighbours.





BE A RESPECTFUL TOURIST

Try avoiding huge accommodation settlements that come to contrast with the natural surrounding.
Prefer to use public transport or carpooling when travelling in short distances.

Award hotels that have invested on environmental policies
When you travel in nature, take all litter with you.

TACKLE OVERUSE OF CHEMICALS

Avoid excessive use of chemical products in house cleaning, kitchen, clothes, personal hygiene and make-up.
Do not overdo it with washing liquid, detergent, glass spray and chlorine. Any extra quantity ends up unnecessarily in the water reservoirs.

Go for less processed food products.

Photo source: <https://www.bioaction.gr>





AWARD GREEN MULTINATIONALS

- Buy products from companies with green policies.
- Obtain information.
- Prefer fair-trade products whenever you can.
- Be aware of *greenwashing* tactics.

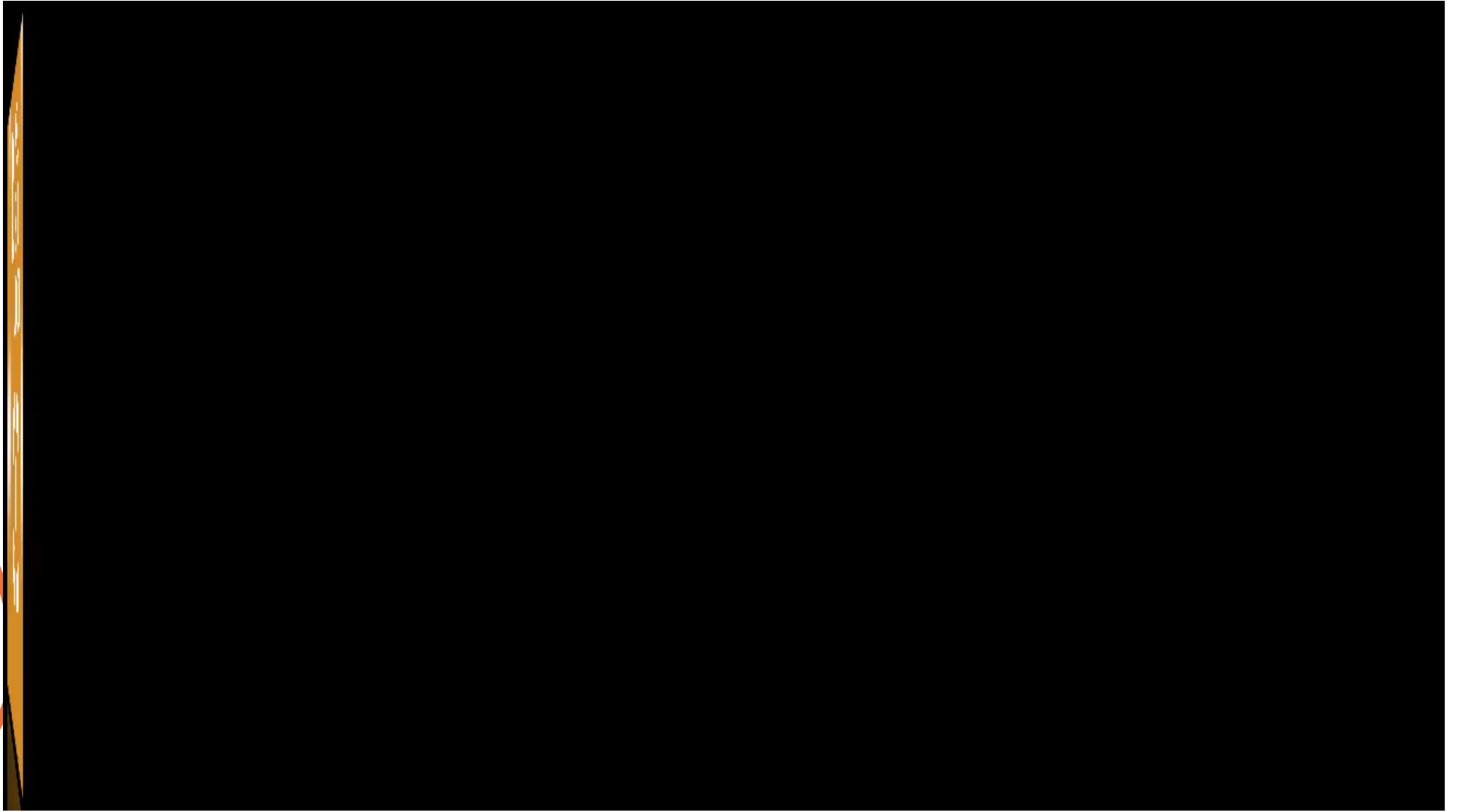




Greenwashing

is the practice of marketing a company or organisation, so they appear more environmentally friendly or more ecological (more natural, healthier, free of chemicals, recyclable, less wasteful of natural resources...) when in practice its activities pollute the environment.

Definition by Wikipedia



YouTube Channel: "U&i Global"



03

The Good News

| **SDG12 DATA** Should the global population reach 9,6 billion by 2050, the equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.

- 📢 **GN** According to even the worst scientific projections on global population growth, it is likely to stop at 9-11 billions by the end of the century and decline from then on. *Source: ourworldindata.org*
- 📢 **GN** 93% of the world's 250 largest companies are now reporting on sustainability.
- 📢 **GN** If people worldwide switched to energy efficient lightbulbs, the world would save 120 billion US\$ annually.
- 📢 **GN** The share of renewable energy in final energy consumption has reached 17.5% in 2015.



<https://inactionforabetterworld.com/en/>





BY 2020,
A TOTAL OF 700 POLICIES
AND IMPLEMENTATION ACTIVITIES
WERE REPORTED

UNDER THE 10-YEAR FRAMEWORK OF PROGRAMMES
ON SUSTAINABLE CONSUMPTION AND PRODUCTION
(FROM 83 COUNTRIES AND THE EUROPEAN UNION)

THE SUSTAINABLE DEVELOPMENT GOALS REPORT 2021: [UNSTATS.UN.ORG/SDGS/REPORT/2021/](https://unstats.un.org/sdgs/report/2021/)

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



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



YouTube Channel: "U&i Global"



04

The Good Practices



The island of Lipsi (Aegean Sea) promotes sustainable tourism

<http://www.lipsi.gov.gr/el/blog>

The small island of Lipsi on the southeastern side of Greece has “banned” the **sun beds** on the seashore, in search for an alternative approach on sustainable tourism development (placed by cafeterias and bars, sunbeds often attract massive touristic waves, resulting in loud music, increase in solid waste and deterioration of the land and sea environment).

The island’s council has also promoted a digital map with **hiking** routes across the island and made recommendations for avoiding to travel by car, the use of plastic items and of digital devices on the sand and preferring to enjoy reading a **book** instead!



Community compost, Spain

<https://ciudad-huerto.org/etiqueta/compostaje-comunitario/>

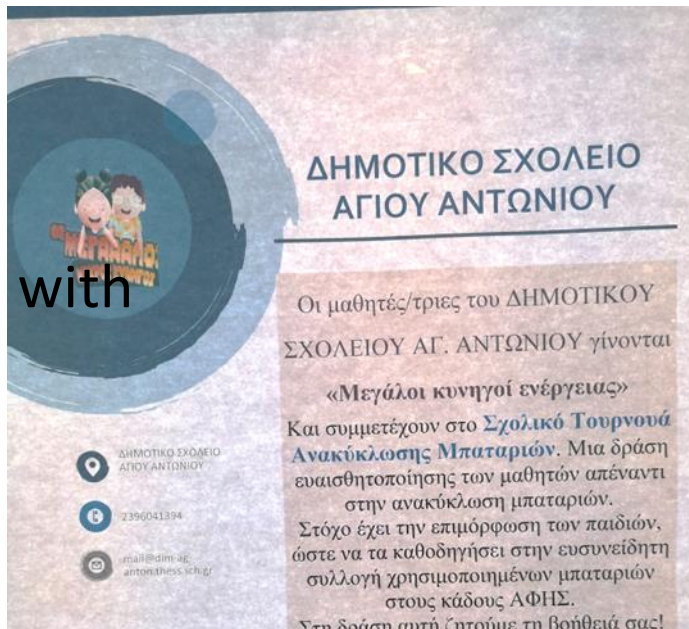
Starting in 2020 from Madrid, members of “Garden City” (“Ciudad Huerto”), a union of experts in vegetable gardening and education, have toured in several cities of Spain that implement individual and **community composting** of organic residuals, checking the outcome of each practice.



The road trip was filmed and the valuable conclusions about **transforming waste into useful** material in practice was shared in their internet platform and in educational seminars and awareness events.



Elementary pupils recycle batteries



In the **elementary** school of St. Anthony village in Central Macedonia in Greece, all students have started collecting batteries from their own village and neighbouring villages the aim to deliver them to battery recycling centres for further management.

The children are **enthusiastic** as they participate in the national Batteries Recycling School Contest, an event targeting not only the increase of recycling of hazardous waste and the decrease of municipal waste, but also the education of young children in the vital importance of recycling our waste.

French Supermarket Food Waste Ban

www.organicauthority.com

France became the first country in the world (2019) to force supermarkets to **donate** unsold food to charities and food banks. French supermarkets with a footprint of 4,305 square feet or more were required to sign donation contracts with charities.

Charities in France were able to give out **millions** of additional free meals each year because of the food waste law, as most of the unsold food was donated to food banks and similar organisations.

Supermarkets were also forbidden from deliberately spoiling food with **bleach** before disposing of it to dissuade dumpster divers, a practice that was commonplace in France until the law was passed.



Central Market of Thessaloniki Greece

Social Responsibility Practice



Since 2018, in the frame of the European programme INTERREG V-A Greece – Bulgaria 2014-2020 and the project "**Social Plate**", the Central Market of Thessaloniki in Greece collects unsold food products with aim to deliver them to **vulnerable** groups through a selection and distribution procedure held by social grocery stores, local NGOs and church institutions. The project was developed as a solution to the problems of poverty, social exclusion and the need to protect the environment.

Up until 2021, over 693 tons of fruit and vegetables were managed, over **485 tons** of which were recovered and distributed to people in need.



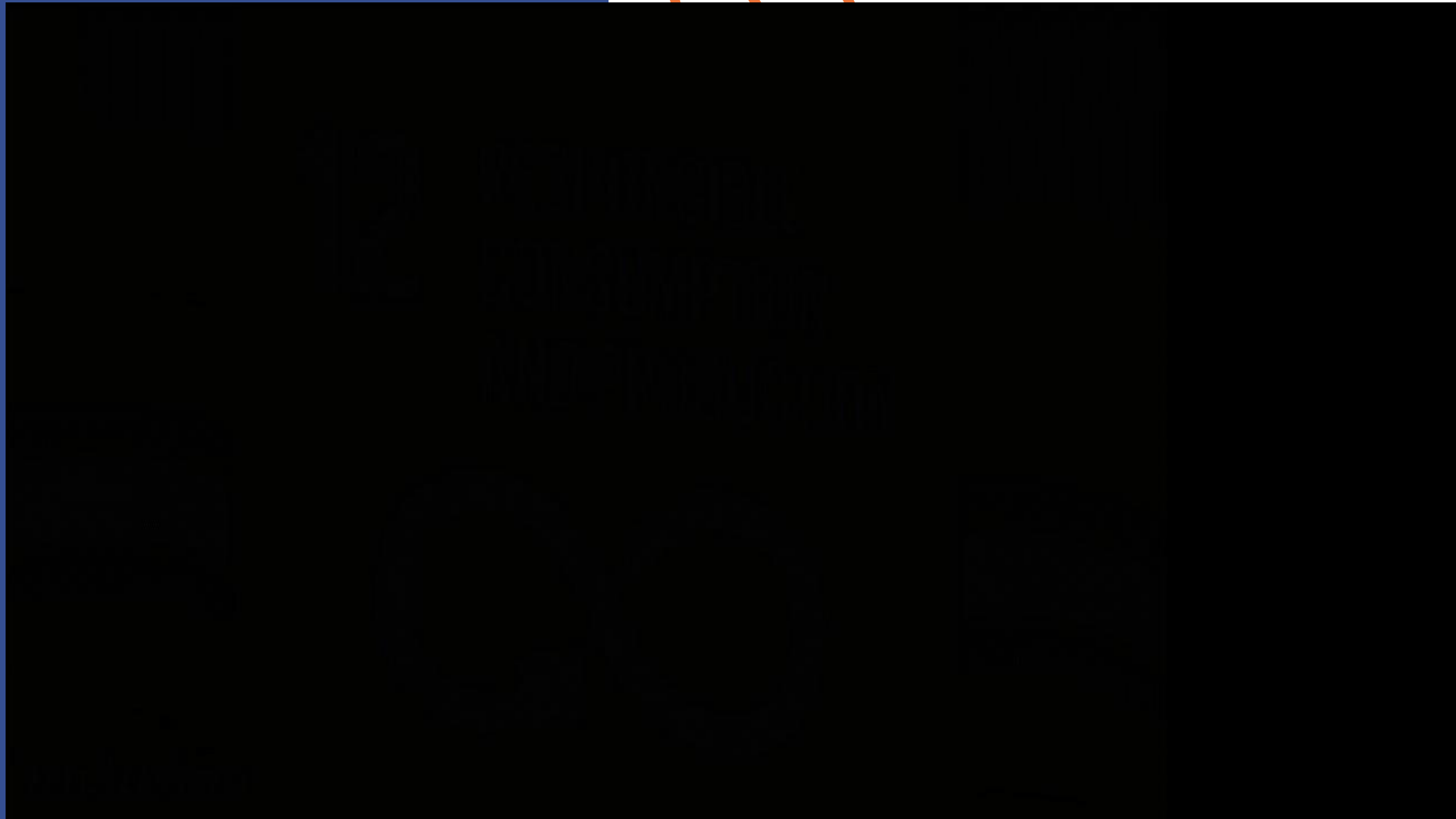
05


Summary and review 😊



What is the real cost of what we consume?

*YouTube Channel:
"U&i Global"*





**When the last tree is cut down,
the last fish eaten and
the last stream poisoned,
you will realise that**

you cannot eat money

**Old refrain of the Cree
indigenous peoples' tribe**

A woman with long, wavy, reddish-brown hair is seen from behind, standing in a vast, green field. She is wearing a dark, long-sleeved top. Her hands are gently touching the tall grass. In the background, there are rolling hills covered in dense green trees under a soft, overcast sky. The overall mood is peaceful and contemplative.

Less is more.



Can you remember the answer to these questions?

- What is overproduction?
- What is overconsumption?
- What is a Circular Economy?
- Can you remember what we use energy in our homes for?
- Can you name a couple of things we can do as individuals to stop waste?



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THANK YOU

Any questions?



www.climatechampions.how