

6 RULES OF CIRCULAR ECONOMY



"Every day, each of us makes decisions for our planet. We only have one Earth, there is no Planet B!"

Jane Goodal

The dominant economic model in the modern world is linear model, i.e. linear economy. Linear economy is based on the concept “take-make-use-throw away”, i.e. exploitation of natural resources, necessary for making new products. This model of economy caused generating a huge amount of waste, which started having a negative impact on the quality of our environment. An economic model in which waste is recycled, reused or repaired is called **circular economy**.



The way of Circular economy means reducing resources exploitation, reusing and recycling all materials, in order that as little waste as possible goes to landfills.

It is based on three principles driven by design:

1. Elimination of waste and pollution
2. Circulation of products and materials (as their highest value)
3. Regeneration of nature





Circular Economy in Serbia has become an important subject, but environmental protection investment is still insufficient. In Serbia, only 15% of waste is recycled, while in European Union countries it is on average 40%. The packaging industry mostly uses plastics, which is why they are found in both industrial and municipal waste. In 2020, an order to ban the use of plastic shopping bags was introduced in Belgrade. Reducing the production and use of plastic bags is included in the "Plastic Bag Waste Prevention Programme". Since 2021, a similar order has been in force in the city of Novi Sad. In Serbia 770 000 tons of food is wasted each year, it ends up in landfill, creating greenhouse gases. At the same time, a large number of households make daily efforts to provide meals for their members. Reducing food loss and waste helps feeding more people without expanding the cultivated area.

6 RULES OF CIRCULAR ECONOMY:

1. REDUCE

Reduce food waste, gas emissions...

Buy only what you really need, through planned purchase. Make a shopping list. Bring your own shopping bag, so that you don't need plastic bags. We buy led by emotions, usually wasting money in this way. Try to use everything in your fridge or pantry, to prevent food waste.

Some tips for everyday life

- Before purchasing, ask yourself: "Do I really need this?"
- Make a shopping list.
- Go through the fridge and use everything in it.



REDUCE YOUR WASTE

PACK YOUR MEAL



REUSABLE BAGS



SHOP ETHICAL CLOTHING



BUY SECOND-HAND GOODS



REUSABLE INSTEAD OF SINGLE-USE PRODUCTS



LEARN HOW TO COMPOST



CHOOSE BIODEGRADABLE PRODUCTS



KEEP FOOD IN NON-PLASTIC PACKAGING



REPAIR



BUY LOOSE FOOD



You can offer food leftovers to the nearest farmer who can use them to feed his animals. If you live in a city, there are lots of shelters for children and adults, to whom the food you don't need may mean a lot. Try to buy products directly from the producer or cooperative. In that way, you will support local development and also get better quality products.

2. REFUSE!

How can we avoid using the products that are difficult to recycle or reuse?

We can refuse to buy them!

Do not use plastic bags, which take 240 years to decompose.

Don't buy products in plastic bottles, because plastics take up to 1000 years to decompose. And an average household uses up to 1000 plastic bottles a year.

In addition, plastic has harmful effects on human health, as well as on normal development of children. Scientists have recently proved that we inhale a credit card's worth of microplastics each week! And it is still unknown how human body can get rid of it.

ZERO-WASTE -The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health." (Zero Waste International Alliance, ZWIA)



Let's try to live without producing waste! Remember to bring your own bottle, shopping bag, reusable bulk food bags. With these reusable items (metal razors, cotton makeup washcloths for face, wax food bags) we reduce the amount of waste in our household.

3. REUSE!

Before you throw something away, consider whether it can perform a new function. Exchange and give unnecessary things to others (for example, you can give outgrown kids' clothes to younger children from your neighbourhood; you can also donate clothes to orphanages). When looking for new items, consider whether it would be better to choose a second-hand item.

Take electronic devices (laptops or computers) for repair before throwing them away. It is highly likely that they can be reused.

UPCYCLING is the restoration of utility values to waste, a different use or function of unnecessary items that would otherwise end up in a waste container.

You can create new things from old clothes and textiles. For example, make bags, bedspreads, carpets, kitchen cloths, etc. from old jeans.

There are artists and craftsmen who deal with upcycling, creating utility items, as well as beautiful, unique things and even works of art.

Big world companies build basketball courts in this way (for example in New Belgrade, NIKE from 20 000 pairs of old sneakers, donated by people from the neighborhood), outdoor gyms, playgrounds, trash cans...

Many broken items, such as furniture, accessories, electronic devices and clothes, can be repaired rather than scrapped or thrown away.

Old tires, cracked vessels or worn out shoes can serve as flower pots in your garden or at the balcony.

You can give glass bottles or jars to someone who will use it for fermented food, instead to throw them away.



4. RECYCLE!

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products.

It is very important to sort waste first, because it is the only way it can be reused later.

Plastic

Plastic packaging, among others after yogurt, cheese, drinks, mousses, the contents should be emptied, rinsed and crushed. There will be more room for more.

Glass

Bottles or jars should be emptied and rinsed, and then thrown into a marked bin or net.

Paper

Cardboard and paper should be folded to take up less space. Check in advance whether they are clean. Contaminated, e.g. greasy, items cannot be recycled.

Metal

Waste should be rinsed and stored in specially designated places.

Elektronics

Waste electrical, electronic equipment and batteries must not be mixed with household waste. They can only be thrown away into special containers.

Bio-waste

Biodegradable waste should be thrown into special containers.



5. REPAIR!

Don't throw away damaged things, try to repair them. Make your old furniture pieces look new again, breathe new life into them. Old T-shirts can easily be turned into bags or toys. Decorate your old plates with a new design, cheer up your meals.

Take electronic devices for repair before throwing them away. It is highly likely that they can be reused. These devices are the fastest growing waste.

Throwing away repairable goods in the EU creates OVER 50 million tonnes of waste every year. UN, in the report from 2022, discovered that there were 62 million tons of waste and only 22 percent was collected and recycled.

Throwing away repairable goods in the EU creates 35 million tonnes of waste every year. Customers would like to repair them, but it is more expensive than buying new products. New regulations for producers require them to repair washing machines, vacuum cleaners, smartphones, etc. beyond the legal guarantee period.



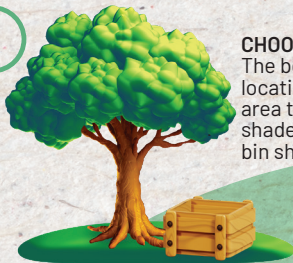
6. ROT!

Composting is the process of turning waste into natural fertilizer. It is a biological process during which organic materials from waste and by-products become humus. Composting has important benefits for the environment and households. The amount of waste going to landfill is reduced by up to 50%, and organic fertilizer fertilizes the soil.



HOW TO MAKE COMPOST?

1



CHOOSE LOCATION

The best compost location is well-drained area that has some shade. The size of the bin should be 2x2m.

2



ADD INGREDIENTS

Put small branches at the bottom (up to 15cm), then a layer of leaves and a layer of bio-waste, and between layers, a bit of garden soil or compost, and fill it to the top.

3



ADD WATER

Add necessary amount of water and cover the pile with jute sack or other cloth.

4



STIR IT

From time to time, stir the material being composted in order to aerate it and speed up composting.

5



WAIT

When compost becomes dry, brown and crumbly, that means it is ready to use.

BEST PRACTIC EXAMPLES

1. **ECO-FUNGI**, Belgrade, is a company that takes 100% circular approach to mushroom cultivation - oyster mushrooms and champignons. They use only biomaterials in accordance with the "zero waste" idea. Among other things, they use coffee grounds as fertilizer. Apart from mushrooms, this company produces various mixtures that include 12 kinds of vegetables: dehydrated vegetables (cabbage, green and red peppers, carrots) and champignons; vegetables (carrots, dried tomatoes, celery, parsley, leek) and champignons; vegetables (leek, carrots and zucchini) and champignons; vegetables (leek and onions) and champignons.



2. **FRAGMENT**, Čačak- Start up company, that specializes in the production of innovative building materials. They produce ecological building panels made from recycled glass, using cement and additives as a binder. Fragment panels offer entrepreneurs, architects, interior and exterior designers, as well as furniture manufacturers, a new, sustainable and aesthetically unique material.

3. **RETEX** - was born as an initiative to solve the problem of textile waste that still had economic value. The aim was also to support women in Užice who are in a difficult social and economic situation to find employment. Raw materials for production are obtained through an organized network of collections and donations. The company redesigns used textiles, making new products from them.



4. **ECO-BIO INVEST**, is a company that is beginning to conquer the world market with products made of material that is an alternative to soft plastic packaging. It is made from organic waste, fruit and vegetables. It has no harmful effects on human health and the environment, as evidenced by certificates from the EU and USA. The business of this company is a classic example of circular economy, because it uses waste as a raw material, making new products which dissolve in water after use or decompose in the ground without additives, and they can be used as fertilizer.



The Ministry of Environmental Protection supports the transition from linear to circular economy. Circular Economy program has been developed, including action plan for the period 2022-2024.

The program focuses on the support in the implementation of circular economy model, local governments support, encouraging innovations, and cooperation between the business and scientific research sectors.

With the help of UNDP, the Ministry has developed a Road Map of the circular economy, which identifies the sectors in Serbia having the highest potential for this transition. They are: manufacturing industry, agriculture, food production, food waste, plastics, packaging and construction waste.



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