

Building Youth Supportive Communities Environment

Co-funded by the
Erasmus+ Programme
of the European Union



CURBA DE CULTURĂ
o comunitate deschisă, în ajutarea tuturor

The information and the views set in this publication are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

This material was coordinated by:
Sorin Berbecar

Authors:
Kristina Piškur
Milena Waas
Raimo Remmer
Robert Jug
Tim Clasing

Graphic design and photos
Estelle Lehmann



Published by Curba de Cultură in Izvoarele, Prahova, 2019

TABLE OF CONTENTS

7
The world has changed
- foreword
(by Kristina Piškur)

8
What is pollution
(by Tim Clasing)

14
BYSC-E
- what is this project about?
(by Sorin Berbecar)

16
Practical Training report
(by Tim Clasing)

20
The path of our trash – to the landfill or to the recycling plant?
(by Milena Waas)

22
Build your own selective collection bin
(by Raimo Remmer)

26
Learn about environment and its protection in an interactive way
(a collection by Milena Waas)

32
Did we catch your attention?
– Check this sources as well
(a collection by Robert Jug)

36
50 easy ways to help the planet
(a collection by Robert Jug)

42
The science of composting in simple terms
(by Raimo Remmer)

46
A little story about paper
(by Milena Waas)

48
Water an exhaustible resource
(by Robert Jug)

50
Forests and why we need them
(by Robert Jug)

52
Sustainable transport
(by Tim Clasing)

54
Conscious cooking
(by Milena Waas)

56
Credits

THE WORLD HAS CHANGED

Our planet is running out of places that have not been affected by humans. Paradoxically, the human race has managed to indefinitely change or devastate parts of the Earth that it haven't even fully explored yet and were only rarely visited, such as secluded glaciers, highest mountain peaks and hard to reach virgin forests.

In a timespan of only few decades, since the environmental issues finally appeared on the global political agenda, we had to admit that it is not just the climate that is changing, but that the planet is in a situation of a global, human-caused ecological crisis. We have affected nature all over the globe through uncontrolled actions in the name of the so-called development and by that we are affecting the lives of our own kind.

Many densely populated areas all over the globe are today toxic environments, where (not only) human population suffers from the lack of portable water, wide spreading diseases, exposure to toxic waste, eroded soil, polluted air and a serious decline in biodiversity. Besides the low quality of life, ecologic problems provoked social and economic struggles living in these areas. Many traditional ways of living became impossible with global changes; basic resources such as food and water became too expensive goods for everyone to afford and their production became impossible in many places that were self-sustainable before.

And yet, so many citizens of the world – among them many Europeans – would feel disconnected to all those catastrophic facts, being used to their regular rhythm of live, consuming and polluting like there is no tomorrow. But global means it has reached all of us, directly or indirectly. We might not notice it until we still have money to buy plastic bottled water; maybe not even until there will be no more spring water to put in bottles.

To break the vicious circle in which we are uncontrollably destroying the environment and the society there is only one way to go: everyday actions on all the levels of individual life. Whether we do it because we feel responsible or because the law is imposing so is less important. But being aware about the consequences of our actions will in both cases bring sense in doing it:

« We won't have a society if we destroy the environment » – Margaret Mead

POLLUTION

First of all, what is pollution? It's basically any man-made negative impact on the natural environment. This includes water, soil and air pollution, but also the effects of excessive light, heat and noise. All those types also have an impact on us, either in a direct way or as a secondary effect, as we are deeply connected and dependant on the environment.



Water pollution

Any discharges or that end up in the water cycle, may they come from agriculture (like fertilizers, pesticides or manure), aquaculture (for example fish farms), industrial activity, or from households, can be considered water pollutants.

Water pollution is critical as it affects aquatic ecosystems, but it also reduces the amount of drinkable water, which is already a scarce resource in some parts of the world. Often, the pollutants become a problem when they bioconcentrate through the food chain, as it happens for example with heavy metal accumulation in fishes. Sometimes the discharge is not hazardous (for example, nutrient rich wastewater from a leaking septic tank), but leads to changes in an ecosystem that cause a destabilization of the equilibrium between the existing species, either by increasing or decreasing drastically their population. An extreme example of water pollution are oil spills, which is lethal to species like fishes, seabirds and otters. Also sediments that tarnish the water, and road salt that ends up infiltrating in the aquifer can be a form of water pollution.

A local example of severe water pollution is the cyanide spill that occurred in Baia Mare, Romania in 2000. After the dam of a reservoir of waste water from gold extraction broke, 100 thousand cubic meters of cyanide-contaminated water spilled out and killed a large number of fishes in several rivers in the Danube river system.

Littering and soil contamination

Littering is probably the most noticeable pollution in our daily lives, as trash laying on the ground, next to roads, in ditches, rivers and so on is an issue all around the world. Probably each of us can find garbage on their daily ways, ranging from cigarette butts to old tyres. But trash is a far bigger problem than the amount we can see laying around in our neighbourhoods: every year around 8 million tons of plastic trash finds their way into the oceans, either polluting the shores or accumulating in giant garbage patches, like the Great Pacific garbage patch. This plastic and other solid non-degradable materials can entangle or be swallowed by wildlife, besides decomposing into microplastics, which effects on the environment are yet to be unveiled.

Soil contamination occurs when hazardous substances, like heavy metals, hydrocarbons (oil, gasoline, etc.) originated from industry or other human activities infiltrate in the soil. This can lead to degradation of the land, affecting all the organisms that live in and on it. Soil contamination can also cause water pollution in a secondary stage, if the contaminants reach the groundwater. For example, in Germany Nitrate-pollution of soil and groundwater is a serious issue, the country even got sued in 2018 for lack of protection of ground- and drinking water and was convicted by the European court this year. The reason for the high Nitrate-pollution of Germany's ground water is its animal husbandry, as it is the third biggest meat exporting country in the world. Therefore it has an equivalent big livestock which excrements are highly rich in nitrate. As the manure is used as fertilizer on the fields, the nitrate makes it way into the soil and the ground water. Nitrate-pollution is very harmful to both the environment and public health, especially newborns are at risk and can have serious health problems if they drink nitrate-rich water. It also leads to acidification of the soil, endangering ecosystems and biodiversity.

<https://www.badische-zeitung.de/panorama/mehr-muell-im-meer--100460134.html>

<https://www.landwirt.com/Fleisch-Deutschland-drittgroesster-Exporteur,,16423,,Bericht.html>

Radioactive contamination

Radioactive contamination can be a very severe form of pollution. A tenth of the world's energy is generated from nuclear fission, yet no technology exists to decontaminate the produced radioactive waste, which is being disposed in safety containers and located deep in the ground. The risks are not completely eliminated though, as the containers can be damaged. For example, Estonia has to deal with substantial radioactive contamination which comes from Soviet uranium mining and production of nuclear materials. The exploration and contamination was kept secret until Estonia gained independence in 1990.

In Sillamäe, a pond was found to contain around 12 million tonnes of radioactive waste, while laying directly on the Baltic shore, with high risk of leakage and contamination of the sea.

An accident at a power plant can have severe impacts, as happened in Chernobyl in 1986 and in Fukushima in 2011. The area surrounding the accidents remain contaminated and uninhabitable for decades, as exposure to radioactivity can cause cancer and other diseases.

<http://www.baltic-course.com/eng/energy/?doc=6363>

Light pollution

Yes, light is also a pollutant. As the society has evolved, more and more artificial light started to illuminate the night for the poorly seeing human species. A first result might come to us when we look above and see almost no stars. Moving into the mountains one might be surprised how many stars are seeable, and have been seen by our ancestors. As light pollution is related to population density, the most light pollution occurs in Western Europe and Eastern USA. It appears, for example, as excessive brightness that causes discomfort, or as skyglow. Excessive light has a bad impact on our health (mainly affecting our biorythm) and it also affects wildlife: for example, insects are attracted to lamps, and excessively lightened beaches (mainly due to habitation and tourism) discourage turtles from making nests.

<https://conserveturtles.org/information-sea-turtles-threats-artificial-lighting/>

<https://www.lightpollutionmap.info/>

<http://cmp-openstandards.org/using-os/tools/threats-taxonomy/9-pollution/>



Noise pollution

Who doesn't enjoy a trip to the nature, just to enjoy the silence and escape the noise of the city? In modern urban life there are sources of noise everywhere; cars, factories, construction sites and airplanes are just a few examples of them. The effects are health issues like hearing problems, sleeping disorders cardiovascular issues and so on. They are more severe on wildlife, as many animals are more sensitive to and dependant on sound. Another example is the sonar from submarines that disturbs marine animals like whales and dolphins, which are sensitive to ultrasonic frequencies.

<https://www.theguardian.com/environment/2013/jul/03/whales-flee-military-sonar-strandings>

Air pollution

Whenever gases or particles are released into the atmosphere, air pollution is occurring. Smoke from chimneys and emissions from cars and other means of transport are probably the most known sources, but volatile compounds (one example are CFCs which heavily damaged the ozone layer) or forest fires are also sources of air pollution. Portugal for example has a massive problem with wildfires every summer, which, apart from destroying the forest and the embodied ecosystem, emit smoke and particles. One could say that a wildfire is a natural disaster and therefore not pollution (as pollution is always anthropogenic), but sadly the vast majority of wildfires in Portugal are man-made. Heavy air pollution can also cause smog (especially in big cities) and acid rain.



Thermal pollution

Thermal pollution may not be the first category that comes to one's mind, but it is yet another existing threat, mainly to river ecosystems. The main cause of thermal pollution is water that is used (by industrial plants) to cool parts of the process, and is then led back to the water cycle having a higher temperature. This might seem of minor interest, but aquatic organisms can be sensitive to temperature and, more importantly, to the amount of oxygen in the water. The warmer the water, the less oxygen it can dissolve, leading to suffocation of animal species and to the excessive growing of algae.

<https://www.conserve-energy-future.com/causes-and-effects-of-thermal-pollution.php>

Written by Tim Clasing



BYSC-E

What is this project about ?

Building Youth Supportive Communities – Environment is a project brought to life after 5 years of work in the community of Izvoarele, work done by Curba de Cultură. After a series of projects focused mainly on intercultural education and personal development we decided to start tackling other issues in the community, thus a project that brings education for environment and selective collection of waste.

The commune, like many others in the country has containers for selective collection of waste. Unfortunately the people either do not really use them or they throw all the waste in one, without selecting it. Hence there is a lack of education in this area and the locals do not have the habit of using these containers properly. So this is what our project brought in: educational activities for children and youngsters in the schools of Izvoarele, Măneciu and Cerașu and in our youth centre, to determine a change of attitudes and to encourage habits friendlier with the environment.

Building Youth Supportive Communities – Environment builds up on the succes of BYSC and BYSC 2 (two previous projects that involved international volunteers) and focuses on education for environment.

- The project has among others, the following objectives:
- Promoting selective collection of waste and protective attitudes towards the environment
 - Developing positive attitudes regarding the involvement and civic spirit in the community
 - Providing a framework for personal development and acquirement of transversal competences for the young people involved.

For achieving these objectives we have designed a series of activities but we are also counting on the creativity of the young people that this project gathered.

Apart from all these the project and the whole community benefits from the international perspective brought by volunteers from countries like Estonia, Germany, Portugal and Slovenia. In conclusion Building Youth Supportive Communities – Environment is a project that will impact the volunteers involved (local and international young people) and the local community.



ROBERT - Slovenian

Nature, animals, culture.

«I sincerely hope that situation regarding ecological consciousness and environmental protection will get better in my life-span».

RAIMO - Estonian

Breakdance, drawing, wood building.

«In this project I hope to spread a bit knowledge about ecological and sustainable lifestyle - permaculture- and if possible teach some breakdancing.».



TIM - Portuguese

Sports, nature, gardening.

«When the opportunity arose to be part of an environmental education project at Curba de Cultură, it didn't take me long to pack my stuff and move further east than I've ever been before».

MILENA - German

Travel, animals, nature.

«[...] there was trash laying around everywhere and in that moment I knew, that my project, to promote environmental conscious waste management, was important».



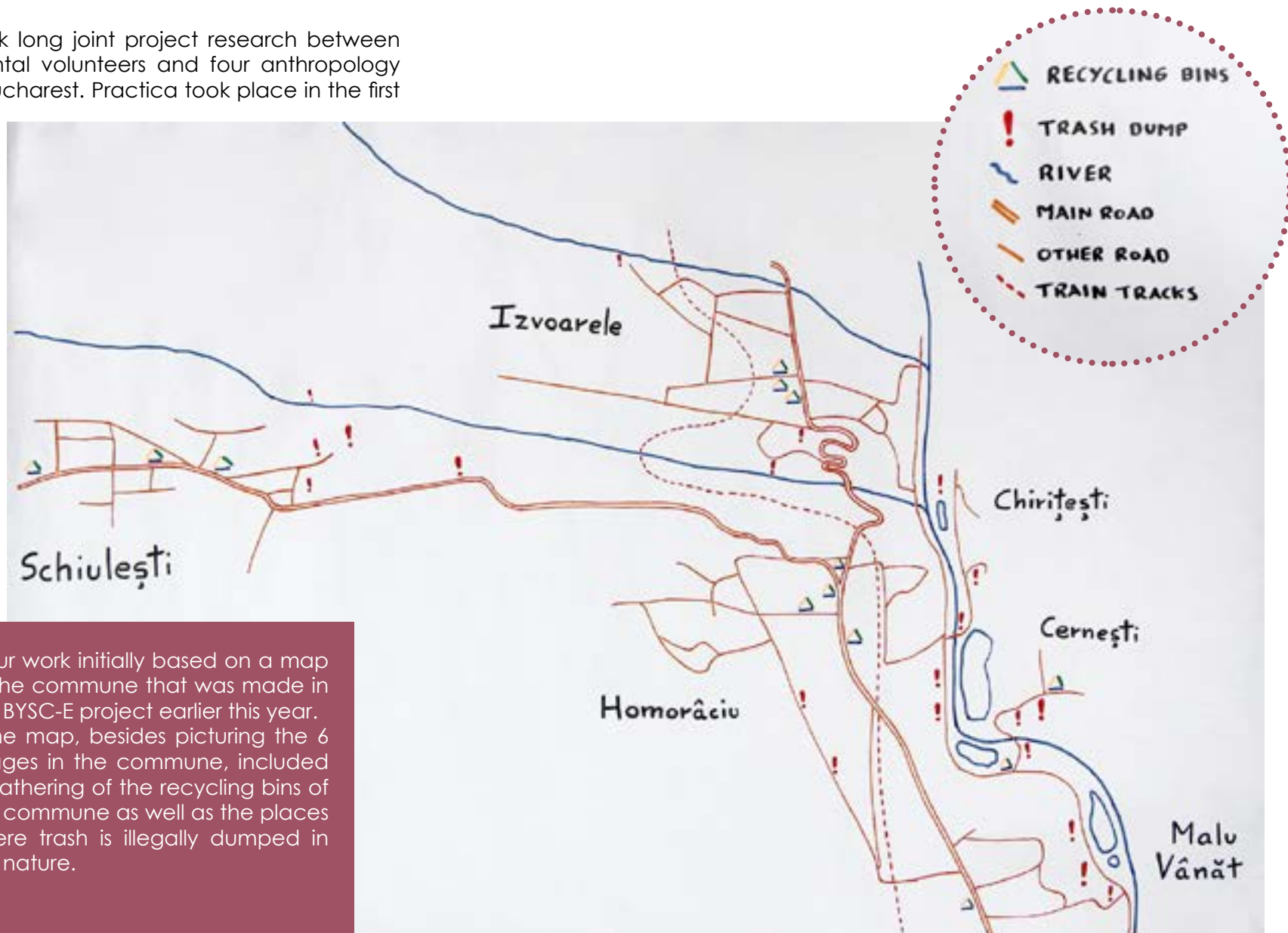
PRACTICAL TRAINING REPORT

Practica was a two-week long joint project research between Curba de Cultură's environmental volunteers and four anthropology students from the University of Bucharest. Practica took place in the first two weeks of August and it was a field research focussed on getting information about the waste management behaviour of the commune's inhabitants. For that, we were listing and mapping trash bins and illegal trash dumps, interviewing people in the commune and observing the trash collection system.

Initially, we went around the commune to validate and update the information of the map, mainly regarding the illegal trash dumps. The situation was shocking : we parked the car in front of the school and started to explore the lower part of the town. Soon we found a small creek in a hidden part of the town that was filled with all sorts of trash ranging from plastics to textiles together with some kilograms of tomatoes.

Our work initially based on a map of the commune that was made in the BYSC-E project earlier this year.

The map, besides picturing the 6 villages in the commune, included a gathering of the recycling bins of the commune as well as the places where trash is illegally dumped in the nature.



Heading towards the bridge over Crasna river, we found a place above a steep slope with a very beautiful view over the valley but leaning over to look down the abyss we encountered yet another place where the villagers secretly throw their garbage. Between plastic bottles, bags and rotting jeans, there were pumpkins blossoming, as if somebody mistook trash for compost to grow their vegetables.

After the conclusion of the mapping, we started to approach the people of the commune, trying to unveil their opinion and point of view regarding trash, recycling and environment. Firstly, we used so-called warm contacts, meaning people that we know personally from previous interviews or other activities. Then we tried to get further contacts from those people or went around the villages approaching the inhabitants.

During the interviews, it became clear that people are not familiar with the term recycling, for example some say that they don't recycle but then they say that they use the blue bags. Also, they are generally familiar with reusing of certain type of items, as paper and cardboard are generally used to start fire in the ovens in winter, while jars are reused for jam, zacuscă and other storable food and bottles are used for homemade juice, wine and liquor.

Coincidentally, in the same time practica was occurring, the commune was starting to implement a new recycling trash system: besides the recycling bins located mainly in the village centres, every household gets a blue bag for recyclable items, that is collected regularly directly at the houses. As this system was very new, basically in every interview we were getting a different information about what to put in the blue bag and when and how it would be collected.

Not surprisingly, lack of information was a recurrent topic addressed by the people. And it took us some time to get the right answer to the blue bag mystery: carton, plastic and metal go into the bag, which is collected every second Wednesday.

Only few people know about composting, and even fewer were actually practicing it. This is rather awkward, as in this rural setting, most of the households and lands generate plenty of compostable material. People are either feeding it to the animals, throwing it to the wet waste or burning it, with some even buying compost for their fields.

The domestic waste water is also considered problematic, as there are several households without any waste water infrastructure, forcing the inhabitants to throw the used water into the garden. Also, some complaint about too small cesspits that regularly overflow to the street. People are also getting bothered by the smoke of burning trash.

Noticeable was also the little knowledge that the inhabitants have about the tax. They pay whatever they have to pay, even if the tax should rise. Some say that if it rises a lot they will stop paying and just burn everything or burying it in the garden. Some things are burned because the trash truck doesn't pick it up and people just don't see another alternative, as they either don't know where the recycling bins are located or that there are too little of them and that they are too far away.

When asked about propositions and suggestions for environmental education for the youth, most said that volunteering hours to pick up trash would be a good idea and that environment and recycling should be themes to be taught in school.

We also observed the trash collection, with some of us following the garbage trucks and others going around to talk to people and to see what they are throwing in their bins. In almost every trash bin we found recyclable items (mainly plastic) and we also noticed that the garden waste, like cut grass and branches, and also rests from construction materials were also thrown away with the regular trash. We also noticed that the trash trucks don't reach all the households, as some are located too far away or in streets that the trucks cannot drive to.

Although information of the people and realization by the households is important, one can't deny the need for better infrastructure.

Written by Tim Clasing

THE PATH OF OUR TRASH —

TO THE LANDFILL OR TO THE RECYCLING PLANT?

You ever wondered what happens with the trash you throw away? The answer is slightly complicated, but still very interesting and important. Part of our project was finding the answer to this question. In order to achieve this, we interviewed the drivers of trash trucks and visited landfills with school classes. The results of our research was illuminating. Most of this article is about the official way trash is managed in Romania, but here it is also important to mention, that a big part of the trash never goes through this path. Instead, people burn their private trash, which stinks and releases toxic gases into the air, risking peoples health or just throw it into the environment. The garbage then stays there for hundreds of years, often poisoning and killing plants and animals.

This is often done either out of lazyness or cheapness, but also sometimes because of lack of alternative. During our research we came to remote villages and places that were forgotten by the official trash system, bad infrastructure made it impossible for garbage trucks to come to pick up their trash, leaving them alone with the challenge to deal with their own waste.

If we are looking at the path of trash, it is very important to distinguish between the trash that is thrown into recycling bins and the blue bags and the one which is thrown into normal bins. Nearly every village in our commune has a recycling stations (You can find a map of them on page 16). There you can throw away your paper (blue), plastic and metal (yellow) and glas trash (green). The trash of these recycling stations gets picked up every time the townhall orders the garbage truck drivers to. This happens unregularly. The blue bags on the other hand were only introduced this summer. They are picked up by the garbade trucks every second Wednesday.



The sorted trash goes to a landfill near Valenii de Munte. There it is first checked for wrongly sorted trash, for example non-glas in the green trash. A lot of people don't care enough to throw their trash into the right bin. Afterwards it is sorted by a group of workers of the landfill.

The yellow trash for example gets sorted by composition and colour.

The landfill doesn't get that much recycable trash, because of this the workers only work on the sorting stations part time and most of the time do other required work at the landfill. The sorted trash is then sold to companies all over the world, which recycle it into new products, a big part of it actually goes to China.



This is only a small part of the trash the landfill process everyday. Most of it is regular unsorted waste. The garbage trucks pick up the bins for the general waste every Friday morning at people's houses. The trash is then piled up at the landfill. While there is no official sorting systems in place for the general waste, there are a couple of people of the Roma minority, who while not employed by the landfill, dig through the waste for recycable trash and sell what they find to companies. Every few years, the pile of trash is covered with dirt and plants are grown on it. While part of the trash will rott after a long time, a big chunk will never fully decompose.

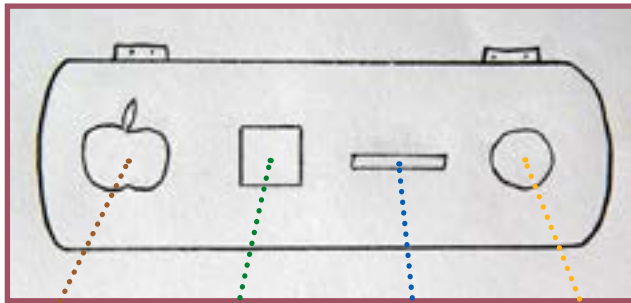
Written by Milena Waas

BUILD YOUR OWN SELECTIVE COLLECTION BIN

Step 1

You have just cut out the bin, it's time to step back and admire it. The lid itself is bigger than the bin.

The lid measures 125cm long and 40cm wide.



The apple is for anything dirty and unrecyclable

The square for glass measures 12cm x 12cm

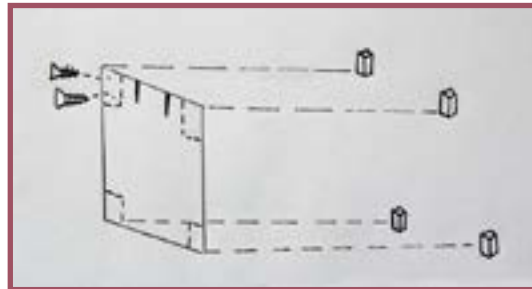
The peek hole of 14cm x 4cm is for paper and cardboard

The round hole is for plastic and metal

Step 2

The best way to assemble the bin is to take cubes, sides and the front part, and choose which sides go up. We use cubes as corners and a holding foundation for the bin.

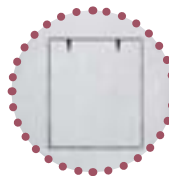
A corner cube measures at least 4cm x 8cm



When attaching cubes on any piece, make sure that the cube is flush from upper side of the bin, and 1cm out from down side. This 1cm will work as legs for the bin. Repeat the same thing with the other side.

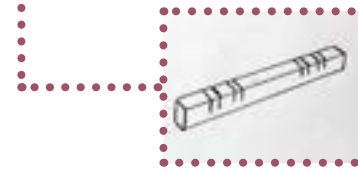
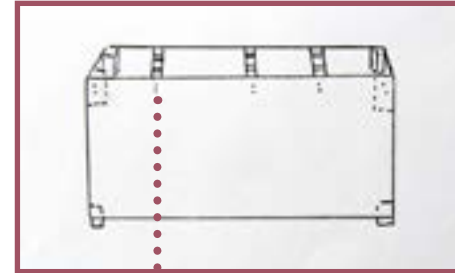


It's the best time to cut 2 ridges to upper part of each side. It will work as bag holder later on.



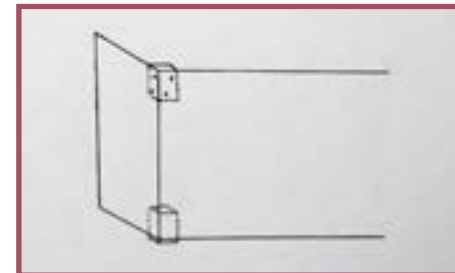
Step 3

You should have 3 wood separators of 35cm long. If you don't have, find them, they are important. It's time to cut the ridges on them to hold the bags. We manage with 4 ridges per piece but if you like aesthetic, you can do 8 ridges each.



Step 4

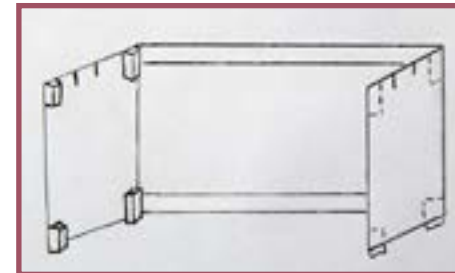
Now, take the sides and attach them to the front piece. You line the front piece with one of the side, and drill 2 holes on each side of the corner. You should have 2 screws on each sides: 2 for the side, 2 for the front.



Step 5

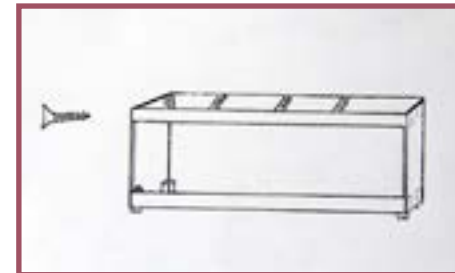
For the back pieces, you repeat the steps of the front piece.

The back pieces are 2 boards of 110cm long each.



Step 6

They maintained the whole bin, so if you have the choice for a thicker plank, it will go upper side to attach the lid with the hinges, and the thinner one will go down part.

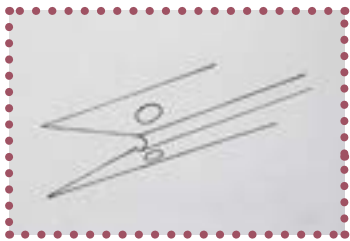
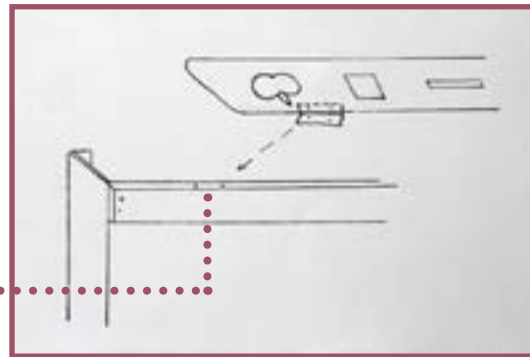
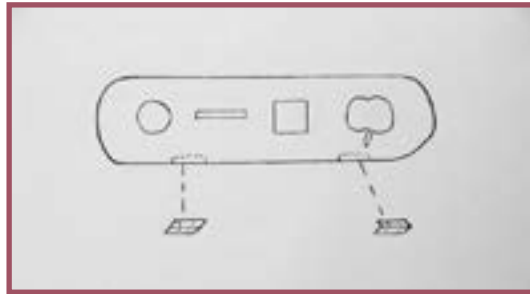


BUILD YOUR OWN SELECTIVE COLLECTION BIN

Step 7

The building of the hinges and the lid are the most difficult. The hinges have to be round side outside of the bin, and it works as a pump stays out. Now, we (the BYSC-E team) recommend you to attach the hinges first to the lid.

Then, you can screw them on the back piece of the bin. For perfection, it should be 2 screws per hinge, and 1 screw on each side of the separator.



Final step

Congratulations, you just assembled your first bin! Now, make sure that it will be painted and decorated properly, and watch out for the rain and bad forecast, it's made out of wood after all.



Our recycle bin...

... is very good, because we are not throwing wrappings on the floor anymore.
(7th grade)

... is useful and it helps us be more "green"
(8th grade)

... is very useful and very cool.
(6th grade)



... helps us to keep our classroom cleaner!
(7th grade)

... makes throwing trash more fun!
(8th grade)





1 - 6
years old



60 min

Recycle by Colours

OBJECTIVES:

- Teaching English vocabulary to kids by playing games.
- Make the kids aware of the items that can be recycled and help them identify the different bins and how to use them correctly.

MATERIALS:

Coloured papers,
Drawings,
Glue tape,
Various trash items
in a box (around
15)

This game is mostly based on movements because of the language barrier.

ENERGIZER : Start with a simple imitation game: Sit at the teacher's desk and have the kids imitate your movements.

▶ After that introduce the recycling bins. Pin one paper of each colour (yellow, blue, green, brown) on the wall with tape. Then the kids have to guess what type of materials go into which bin, and whenever they are right, pin a drawing of that material on the respective coloured paper (glass, plastic, metal, paper, carton and a fish bone for general waste, which they found very funny).

▶ Then open the box, and take the items out one by one, asking for the name and writing it on the board. Use recyclable items, but also non-recyclables like a piece of wood or a cloth rag.

▶ Then, move the chairs aside and whenever you take an item out of the box, the kids have to put themselves in front of the colour where they think that item is disposed.

▶ After finishing this part put the tables back. In the last ten minutes, make a recap of the item names (the kids have to look at the board and to say the name of the item in English) and a recap of the bin in which they belong (the kids have to say the colour of the bin).



9 - 12
years old



60 min

About Mass Fishing

OBJECTIVE: Informing and raising awareness about mass fishing and its effects on the environment

MATERIALS:

Long rope,
Tape,
Small papers with
pictures/names
of sea creatures
written/drawn
on them (have
one of them be a
tuna)

ENERGIZER : Mass fishing - 10 min

▶ One person is named the fisherman. Either send them out of the room or make them look away, while you tape the papers on the backs of the pupils.

▶ Tell the pupils to run around in a circle. Give the fisherman the rope and tell him to catch the „tuna“.

▶ After he catches it or after 5 minutes of trying, help him catch the tuna by catching all of the sea creatures with the rope at once. Use this to explain that the rest of the sea creatures are called bycatch and that they would just be thrown away dead.

SILENT FLOOR - 20-50 min

▶ Make small groups (4-5 people per group) with the pupils.

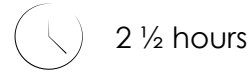
▶ Give every group an A3 paper with a statement about mass fishing written on it (e.g. Mass fishing is necessary in today's society; The only way to stop overfishing is by banning all fishing). The groups can have different or the same statements.

▶ Give the pupils pens and tell them to discuss the statement in written form with each other and to not speak from now on. Play a bit music in the background in the meanwhile.

▶ Stop when the discussions stop or when you run out of time

MATERIALS:

A3 papers,
Pens,
Markers



Treasure Hunt

OBJECTIVES: intergenerational collaboration, productive activities, knowing your surroundings

PREPARATION:

- ▶ Prepare riddles, that when solved reveal certain places, where a new riddle is placed. (Example: *Where the green light shines day and night – for a pharmacy with a green light sign*). Put them into plastic bottles. Hide one of them at every destination. The idea is, that the group gets a riddle, the riddle leads to a place and at that place they find a new riddle. This continues till the final place, where they find the flags.
- ▶ Make two flags of different colours.
- ▶ Make a treasure. A good idea for this are cookie medallions. Just make simple cookies, but before backing, cut a 1 into the form and make a small hole with a straw on the top edge. After backing, put a thin rope through the hole and make a knot into it.

MATERIALS:

Bikes,
Pillow cases (flag),
Plastic bottles,
Paper,
Water,
Box,
Cups,
Cookies

IMPLEMENTATION:

- ▶ Divide the participants in two groups and give each of them a colour and a matching flag. (Have one organiser take away the flags and hide them at the final destination)
- ▶ Give them the first clue. After that, they go from clue to clue, till they find the last one accompanied by the flag of the other team. The last clue is the same for both teams and leads to a meeting spot, where they are supposed to play capture the flag against each other. Use a big area for this spot. Tell both teams to place the flag at a certain place.
- ▶ Capture the flag is a game, where you have a big area divided into two zones. Each zone belongs to one team. The teams flag is somewhere on the enemy's zone. The game is won, when a team manages to capture their own flag and bring it back to their territory. Each team also has a prison on their territory, when a person touches an enemy on their own territory, the enemy goes into the teams prison. Prisoners can be freed by having someone from their own team high-five the ward (use a non-participant for this role).
- ▶ The winning team gets the final clue, which leads them to the final treasure.



8-12
years old



8 - 30



~30 min

A recycling poster lesson

OBJECTIVES: Raising awareness about recycling and teaching them the right sorting process

MATERIALS:

Papers,
Pens,
Markers,
Colored pencils

- ▶ Divide the participants into 4 groups. Each group is now appointed to a color (green = glass, yellow = plastic and metal, blue=paper and cardboard and brown = non-recyclable).
- ▶ They have the task to design a poster with pictures and words of items that belong into the bin.
- ▶ Give them about 20 minutes to finish the posters. Let music play in the background for a better working atmosphere. Try to help them with ideas, if you see a group struggling.
- ▶ After all the groups are finished, let each of them come to the front and present their posters. If there are mistakes on it, explain it to them and let them put a red X over them.
- ▶ Ask them a few small questions.

Other impressions from the students after having activities with our volunteers...

... because they get recycled and we can make different things from them!

(6th grade)

... in order not to pollute the forests and the country and to have clean air and no trash.

(7th grade)

... not to pollute the environment

(6th grade)

We need to select trash...

... because we will save the planet!

(5th grade)

.... because we need a cleaner country that takes into account OUR health as well!

(6th grade)

... because they need to be selected to be recycled

(6th grade)

DID WE CATCH YOUR ATTENTION?

Check these sources as well

25 easy ways to help save the planet:

<https://www.realsimple.com/home-organizing/green-living/planet-friendly-tips>

Forever match:

https://strikesurvival.com/product/forever_match/

10 things you can do to help save the Earth:

<https://science.howstuffworks.com/environmental/green-science/save-earth-top-ten.htm>

11 things to know about upcycling:

<https://www.housebeautiful.com/uk/renovate/upcycle/a1911/upcycling-beginners-first-project-advice/>

50 simple ways to save the planet:

<https://www.theguardian.com/environment/2002/aug/22/worldsummit2002.earth21>

37 ways to reduce trash:

<https://www.smallfootprintfamily.com/37-ways-to-reduce-trash>

Raimo's article:

<http://evs.curbadecultura.ro/index.php/2018/11/01/science-of-composting-in-simple-terms-compostul-pe-intelesul-tutoror/>

International upcycling campaign:

<http://www.yeenet.eu/index.php/campaigns/up-cycling-campaign>

Tim's article:

<http://evs.curbadecultura.ro/index.php/2018/09/19/small-everyday-things-that-make-a-difference-for-the-planet-mici-lucruri-din-viata-de-zi-cu-zi-care-fac-o-diferenta-pentru-planeta/>

Campaigns, awards, initiatives and innovations regarding recycling and waste management:

<https://nra.mrw.co.uk/shortlist-2018>

How to recycle CFL:

https://www.energystar.gov/sites/default/files/asset/document/CFL_RecyclingProgramsandMercuryEducationEfforts_NEEP_Lis.pdf

International recycling movement, join on 18th of March:

<https://earth911.com/inspire/global-recycling-day/>

International recycling movement, join on 18th of March:

<https://earth911.com/inspire/global-recycling-day/>

50 ways to help the planet:

<http://www.50waystohelp.com/>

The remarkable recycling gala:

<https://www.facebook.com/events/the-remarkable-recycling-gala-2018/500235083673528/>

10 household items you can recycle:

<http://www.50waystohelp.com/recycle-household-items/>

Incredible things you can do at home:

<https://www.favecrafts.com/Green-Crafting/659-Recycled-Crafts-Crafting-with-Recyclable-Items>

Green group:

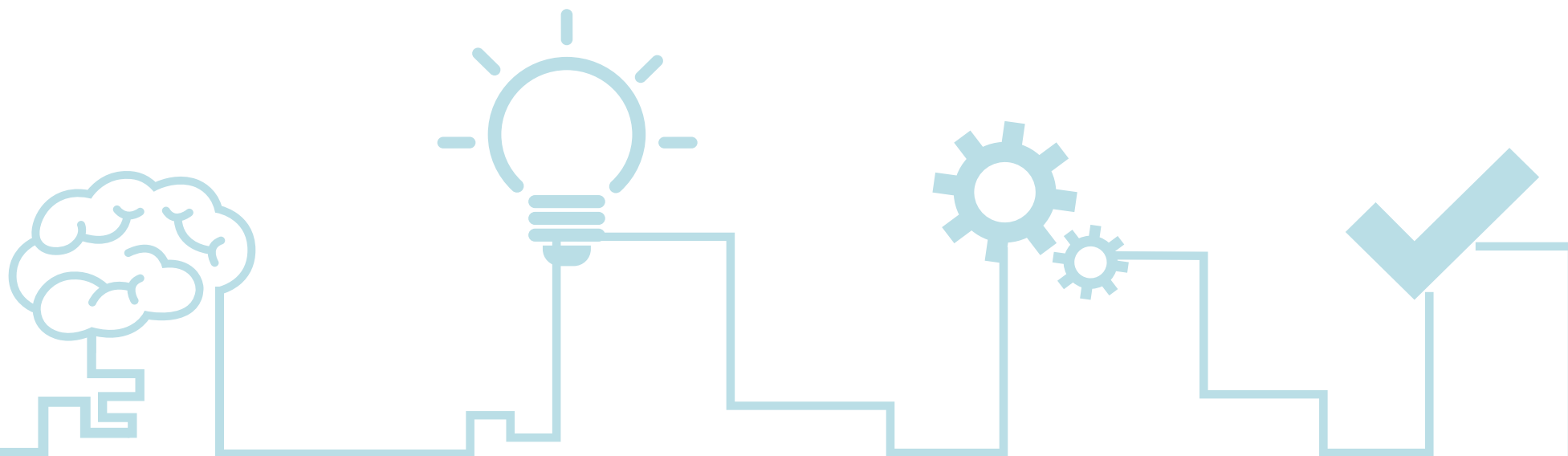
<http://www.green-group.ro/en/companies>

Statistics:

<https://www.eea.europa.eu/data-and-maps/indicators/waste-recycling-1/assessment>

All about composting:

<https://compostguide.com/>



50 WAYS TO HELP THE PLANET

Like it or not we currently only have one planet to share with all of life forms that thrives here. It is quite apparent that our lives make a big impact on our surroundings, exponentially so since the start of industrialization. So not to expedite the process here are some simple steps you can take to be more environmentally friendly:

1
Compost!
If you have a garden, compost is not only a way to reduce trash on landfills but also a free way of getting fertilizer for your plants.

2
Recycle!
Separating your trash is easier than it may seem. Placing the collecting bins is vital, how Tim handled the situation you can read in his article, which can be found in the links below.

3
Mind the water!
Water is essential for many things but closing the tap while you are brushing teeth can make a big difference.

4
Drive smarter!
Driving more moderate and will less forced acceleration will not only lower your emissions but also your expenses on gasoline.

5
Illumination!
It is nice having a bright room any time you want, but make sure to close the lights when you leave the room. Also: Change your light bulbs for compact fluorescent light bulbs (CFL). They last ten times longer than a standard bulb and use at least two-thirds less energy.

6
Buy local products!
Speaking of transport, your food also needs to travel to reach you, so buying local products will reduce the emissions from trucks that deliver it.

7
Make a choice!
Choosing the same product with less packaging will save your time and your planet.

8
Share the wash! Turning on a washing machine while it's not full wastes a lot of water. To avoid this you can share it with other people in the apartment to fill it up.

9
Control your indoor temperature!
Having big differences between outdoors and indoors isn't only a great way to catch a cold but also a way to empty your wallet and damage the planet.

12
Transport!
We all have places to be but how we get there can make an impact. Using a bike or your feet for short distances is not only healthy for the Earth, but also for you.

15
Sun is your ally!
Lifting your curtains on the sunny side of the house will make warm up your home, even if just a bit, without costing you a cent.

10
Smell test!
If your clothes do not stink do not wash them. A simple sniff will tell you if they need to be washed, if you do not want to be caught in the same outfit two days in the row you can also use today's school/work shirt as tomorrow's stay at home outfit.

13
Refuse the spam!
Receiving unwanted commercials in your mailbox does not only take your space but also increase your waste. You can choose not to receive any by simply putting a sticker stating you do not want any on your mailbox.

11
Choose the right appliance!
Electric kettles use less energy than stovetop ones. A toaster oven uses up to half the energy of a conventional electric oven. An electric slow cooker makes soups and stews using less wattage than a stove.

14
Choose wisely!
If you are looking for a new computer it is indeed important to get one that suits your needs, but just a heads up: laptops can use up to 70% less energy than their desktop counterpart.

16

Reuse!

Buying bottled water is sometimes a necessity to avoid health risks, but if your tap water is drinkable just fill an empty bottle to take with you. Avoid dehydration and pollution!

17

Wind is your friend!

Drying your clothes in the drier is convenient but also not very energy efficient. Hanging your clothes outside on a nice and sunny day will get them dry for free.

18

Donate!

Instead of throwing outgrown clothes away you can donate them to someone in need. Not only will your trash fill up slower you will also help somebody in need.

25

Turn it off!

When you close your television it still uses electricity, turning it off completely is better.

26

Lighten up!

Using brighter colors in your rooms will not only uplift your spirits but also make you turn on the light less, thus saving your electricity.

27

Be romantic!

Have a candlelight dinner, having a nice ambient and a smaller electricity bill.

19

Refuse the straw!

Straws are fancy, but the one use plastic ones can sure pile up. Refusing a straw in the bar can very well mean one less sea turtle getting choked.

20

Mind the napkin!

Do not take more napkins than you need, throwing clean ones away is just bad manners.

21

Bag it!

Bringing your own bag to the store will spare you a couple of cents but more importantly that bag will not go to the trash and pile up on the landfill.

28

Insulate!

Having properly insulated walls will cut your heat loss by up to 60%.

29

Boycott!

Choose eco-friendly companies, boycott the rest, if it can be done.

30

Clean your fridge!

Dusty coils on the back can increase energy consumption by 30%.

22

Shower!

Taking a nice and relaxing bath sure relieves the stress, but taking a quick shower will save the planet and your wallet. Showering in pairs is not only sexy but also green.

23

To the library!

Borrowing books will grant you the experience of an epic story without wasting more paper for your own personal copy.

24

Explore your home!

Taking a vacation in your country will not only make you more connected to your local intrigues but also reduce the pollution of the distant travel. It is also cheaper!

31

Grow your own flowers!

That way you can give your own when occasion requests it instead of buying them.

32

New car?

Choose a car with a 3-way catalytic converter, to reduce nitrogen oxides and hydrocarbons emissions by 90%.

33

Baby bottom!

Anyone who had a baby will know what a hustle those diapers are, wherever possible, choose cloth diapers – this aids the environment and is kinder to baby's skin. If you desperately need the convenience of the disposable diaper, use an environmentally friendly brand. Average child can produce up to 3.5 million tons of diaper waste.

34

Ban blinds!

Heavy curtains protect better from the sun in the summer and keep more heat inside during the winter.

35

Use your mug!

Using your own mug in the office will save you the hustle of plastic cups every day.

36

Do not pre-rinse!

If you have a dishwasher using a proper detergent will do the job, saving many litters of water in the process.

37

Bake with heart and the head!

Not all meals require preheating, so avoid that if possible. When checking on your food, use the glass window instead of opening the doors.

38

Old news!

Do not throw your old newspaper away, you can use it as a fire starter; if you do not make your own fire recycle it and save a lot of trees. Even better: go online for your news.

44

Carwash!

Car wash services are trying to reduce costs and maximize profit, therefore, they have the optimal amount of water for a thorough clean down to a fine art. Using these services ensures minimal water wastage. Thus you can spare millions of litters of water.

46

Pay online!

Paying bills online will save your time and reduce that paper consumption. Living outside of city also means you do not have to drive to do it.

45

Fly smart!

Choosing rail over a plane when possible is recommended, but if you do need to fly use an e-ticket. Save on paper and in some cases even on your flight price!

39

Wrap it up!

Wrapping paper is not likely to be recyclable, why not personalize your gifts and be a bit creative? Your friends and family are sure to love it.

40

Plan your trips!!

Planning your day so you hit all the errands in one trip is a good way to reduce pollution, carpooling or using public transport is even better!

41

Come on baby, light my fire!

Do not buy disposable lighters 1.5 billion of them end up on landfills every year. Use rechargeable ones, better yet use paper matches. Wooden matches are made of trees but paper ones are produced from recycled paper. There is also a thing called forever match, check the link below!

47

Buy less!

Do you really need all that stuff? If not, save your time, money and environment!

48

Recharge!

Use rechargeable batteries. It is no secret that the corrosive acid in throw away batteries is extremely damaging to soil when they end up in landfills. Although the recharging unit is initially an unexpected expense, long term, this will save you money. And you will never find yourself short of a battery when you need one!

49

Sharing is caring!

Often, when people are damaging the environment, it is because they do not have the facts, or have not considered a particular course of action. Share this list with your friends – if each of them takes on board just one point, the effect could be immense. And if they share it on too, think of the mass chain reaction. Let's work together to make the world a better place.

42

Plant your own tree!

There are so many benefits to it, not only do they produce oxygen and filter the air they can provide you with shade, aesthetics and fruit.

43

Buy second hand!

A lot of things in second hand stores are not only in great condition but also way cheaper. Especially things that children have outgrown, like bikes.

50

Download!

Buying disks for installing programs and such sure makes an environmental impact. I'm not saying you should break the law by pirating stuff but that awesome game you want to buy? Likely it will be on steam sale, saving your money and sparing the Earth.

Written by Robert Jug

THE SCIENCE OF COMPOSTING IN SIMPLE TERMS

Composting is highly recommended in agriculture. Some say that animals are the best fertilizer producers, but they are wrong: it is indeed good, but it contains a lot of acid so you need wait a few weeks or even months before using it as compost. And not even mentioning the smell. So, a better, less smelly way to compost is to start a compost pile. It is easy and if done RIGHT it will not smell at all! Also on the benefits side: in some cases it takes only 2 weeks before getting good and usable compost.

What do you need for it?

Not much: you need **space** (depends how big is the compost pile). Also you need **food leftovers**, as these will be the things you want to get rid of and turning it in green stuff, known as a nutrition for compost.

Another thing you need is referred to as **brown stuff**, that means **old wood or paper, leaves** that have turned to brown or **old grass** that is already brown. **Brown stuff** is a building block for composting.

Taking care of a compost pile

General rule is – if it smells you messed it up. That means it might not have enough of air, or too much of green stuff, meaning not enough of brown stuff to decompose that smelly green stuff. Maybe your compost pile is black? That means its overheating and you need to stir it. Yes its best to stir your compost pile once a week so it would not over heat and maybe to take that precious nutrition rich dirt that your plants grave for so so so so much.

Let's start with a compost pile :

Step 1

Find a place in the shade on the middle of the day. In my home I have 1m diameter of fence circle, on the shade of an apple tree.

Step 2

Start a kind of sandwich with brown stuff and green stuff. A compost pile is composed from 80% of brown stuff and 20% green stuff. Just imagine a sandwich from this and try to build one ... you put a bit of brown stuff and add 1/4th of green stuff, on top of that again brown stuff, added 1/4 green stuff and so on.



Urban compost

But wait! What if you live in a city and want to compost at home? There is a solution. All you need is a bucket, green stuff (some food leftovers), a bit of brown stuff (an old news paper will do), some water and some WORMS. But not any worms: you need a handful of worms from special species and you problem is solved (for example red wigglers are most popular).

These compost worms are awesome, they speed up composting remarkably and as result you can collect worm juice. All that these guys are doing is eating, reproducing and leaving behind their poo, so juice is actually their pee, one of the most powerful organic fertilizers. You have to mix it with water though, 10:1 for not killing the plant itself, as it is very concentrated.

So, when composting in the city all you need to do is to water the little guys, feed them every once in a while, have a bit of time to time gather the compost and juice, and ooh – make sure that they will not get direct sunlight as this is what kills them.



YES and NO in a compost pile

YES!

- ▶ Organic materials like leaves, grass, and food scraps (not oily!)
- ▶ Newspapers (most inks used in newspapers are not toxic)
- ▶ Tree bark
- ▶ All fruits and vegetables (including citrus)
- ▶ Vegetable and fruit peels and ends
- ▶ Coffee grounds and filters
- ▶ Tea bags (even those with high tannin levels)
- ▶ Grains such as bread, cracker and cereal (including moldy and stale)
- ▶ Eggshells (rinsed)
- ▶ Leaves and grass clippings (not sprayed with pesticides)
- ▶ Paper towels (which has not been used with cleaners or chemicals)

NO!

- ▶ Meat and bones
- ▶ Non organic waste as plastic
- ▶ Oily materials

A LITTLE STORY ABOUT PAPER

A little story about paper

Coming from Germany, I am very used to recycling, especially when it comes to paper. Germans recycle about 80% of all their paper, meanwhile the recycling of paper is nearly non-existent in Romania. But why go through all the work of carefully selecting the paper and recycling it to new paper? Unlike plastic or metal products, paper is made out of wood which can easily be regrown.

One big reason would be in order to save water. The production of 40g new paper needs 2,8 L of water, compared to 0,2 L for recycling paper. It also becomes a lot more polluted in the process of producing new paper, than in the one for recycled paper.

Another point is, that the chemicals used in order to make paper out of wood are often very toxic and bad for the environment, unlike the ones used for the recycling process. This is especially true for the bleaching of newly made paper, which is either not done with recycling paper or done with non-toxic chemicals.

The recycling process for paper also needs 1/3 of the energy of producing newly made paper. It also needs wood. While trees can be regrown, it takes years for them to do so and if we use up too much wood to regrow, the amount of forests in a country decrease and decrease, as is currently the case in Romania.

If you want to help the environment, try to sort paper and put it into the blue recycling bin, buy recycling paper instead of normal one and use both sides of paper.



And here is a little guide for recycling paper yourself:

- ▶ Put small pieces of paper [tear them apart by hand] into a bucket of water and leave it alone for three days
- ▶ Nail a fly screen onto a wooden frame (about the size of a piece of paper)
- ▶ Blend the water-paper-mix with a blender. If the mass is too solid, add warm water.
- ▶ Put the paper-mix into a big container, add water (About a quarter of the paper mass). Take the frame from step 2 and pull it slowly through the water, till there is a small layer of paper on it.
- ▶ Tear the layer slowly from the frame and leave it to dry.

Written by Milena Waas

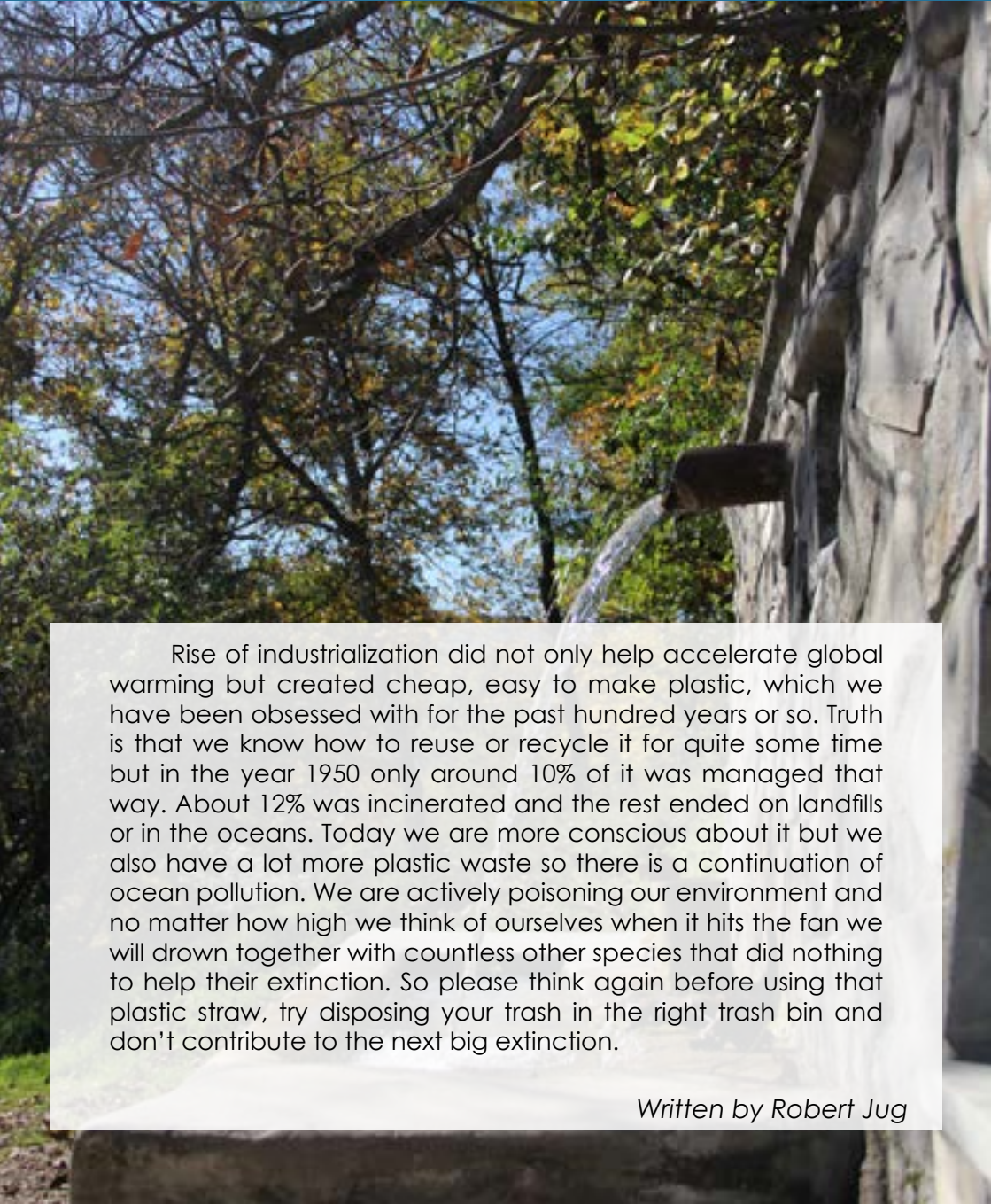
WATER AN EXHAUSTIBLE RESOURCE

Life as we know it would not exist without our dear old friend H₂O. Science has deduced that life in its primal form must have originated in water, since evidence suggests that life started evolving before the land was habitable. It started simple with rapid progressions throughout eras.

Our planet is mostly water and just as the life that thrives on it too is forever changing. Water plays a massive role in that as it can exist in three different states: gas, liquid and solid. There were numerous droughts, ice ages and times of abundant rains.

Since the dawn of civilization our ancestors sought security of flowing water, as it is essential for our survival. Rivers played a major role in creation and downfall of numerous empires, great cities and even helped us develop agriculture which provided, for the first time in history, a surplus of food. That meant that people no longer had to spend all their time looking for food and could focus on other ideas, such as building, creating art, making complex societies and so on.

Most of water on planet Earth is salty and a hefty amount of «sweet», or drinkable for us mammals, is stored in ice glaciers. Even though mammals cannot sustain themselves by drinking from the oceans it's still home for most planetary species and those are currently in great danger because of us and our inappropriate waste management.



Rise of industrialization did not only help accelerate global warming but created cheap, easy to make plastic, which we have been obsessed with for the past hundred years or so. Truth is that we know how to reuse or recycle it for quite some time but in the year 1950 only around 10% of it was managed that way. About 12% was incinerated and the rest ended on landfills or in the oceans. Today we are more conscious about it but we also have a lot more plastic waste so there is a continuation of ocean pollution. We are actively poisoning our environment and no matter how high we think of ourselves when it hits the fan we will drown together with countless other species that did nothing to help their extinction. So please think again before using that plastic straw, try disposing your trash in the right trash bin and don't contribute to the next big extinction.

Written by Robert Jug

WHY DO WE NEED FOREST AND HOW CAN WE KEEP THEM ?

I can't remember if there was a time when I wasn't in love with nature, could be because I grew up in a place where I could play among the trees anytime I wanted. I come from a small country in central Europe called Slovenia and the thing I adore most about it is the fact that 66% of it is covered by forests. Those provide a vital environment for many species. There are over 3000 different fern and flower species along with 50000 different animal species thriving in my country so I'm very happy that over 11% of our land is protected territory.

Upon my arrival in Romania I was initially shocked by the vast flat-lands but in a country as big as Romania, I was sure to find some landscapes more suitable for my soul. It comes as no surprise the country has plenty of green forests to offer. Not only that, there are 3,700 plant species identified, out of which 23 are declared natural monuments, 74 are extinct species, 39 are endangered species, 171 are

vulnerable species and 1253 rare species. 33.792 animal species have been identified, out of which 33.085 invertebrates and 707 vertebrates. So there are a lot of reasons to protect the natural environment, not only in my country and Romania but also everywhere else.

But a question comes to mind: how? How can you as an insignificant individual help something so ancient and bigger than you can imagine? Surely none of us will single-handedly prevent climate change, deforestation and pollution, but every little bit helps. The easiest way and the one that unfortunately doesn't pop into everyone's mind, is simple: just don't throw your trash on the floor after you no longer need it. If you were able to carry the package of chips with you, before it was empty, how can you not take the empty one back to the nearest bin? Using recycled paper also helps a lot as no new trees were cut down to help you with your daily lives.

Hemp products are also a very good alternative as the plant gives valuable resources in a shorter time; it also isn't very demanding and doesn't exhaust the soil as much. With wide variety of use it truly is a great choice, from food to building material: is there anything it can't do?

Another simple solution is to opt for a walk or ride on a bicycle instead of taking a car. Using public transportation instead of a personal vehicle also doesn't seem as much but definitely helps.

But back to my main point: why do we need trees in the first place? It's not only because they are nice to look at, even though studies showed patients with a green view had a quicker recovery. The obvious reason is because they produce oxygen and well, that's literally something you can't live without, them filtering over 21 kg of carbon dioxide per year (a single tree) is also pretty amazing.

The root system prevents soil erosion, their shade can help cool down urban areas, also saving you money on cooling down your house in summer and providing protection from winds which can help lower costs of your winter heat bill. Air pollution isn't the only pollution they help with, noise pollution is also lowered in areas with trees. To top it off just think about all the food they provide, from fruits to syrup and playing a vital role in honey production. There are also medicinal properties that can be extracted from a number of trees (apple tree, common ash, hazel, beech tree, cedar and black walnut just as an example). So on your next walk through the woods I hope you will see these ancient beauties as the amazing living things they are and will be mindful of your surrounding. Plus points if you take out more trash than you brought.

Written by Robert Jug

SUSTAINABLE TRANSPORT



What makes us choose our daily way to work or school, the weekly shopping trip or the way to holidays?

As I see it, we mainly look to travel as cheap, fast and comfortable as possible. Besides that there are some secondary aspects such as safety, entertainment, health.

And then there is something called sustainability. To be fair, sustainability comes way down the order in terms of travel requirements, as almost no one will choose a travel that is more expensive, less comfortable and takes more time than the conventional choice, just to have a small positive effect on the environment.



Along my various trips through Romania I noticed that using a car is not only the fastest and most comfortable mode of transport, but usually also the cheapest.



Moreover, trains and especially buses tend to be unreliable. This makes it unreasonable for most people to leave the car home and use public transports.

So besides the personal effort of each one of us to try to travel eco-friendly, it also takes action and investment from bigger stakeholders (countries, cities, companies) to make sustainable travelling more attractive, meaning: cheap, fast and comfortable.

But which modes of transport are actually sustainable?



CONSCIOUS COOKING



There are small things that we can do in everyday life in order to help and protect the environment in which we live in. Even if it does not see, one of these areas is cooking, so I brought to you a series of recipes that will help you be more environmentally friendly.

One of my favorite meals is

Red Beet Soup

It's a Polish meal and I cook it after my mother's recipe. While I never managed to make it quite as good as she does, I still love cooking (and eating) it.

INGREDIENTS

- 1 beetroot
- 3 big potatoes
- 1 carrot
- a cube of vegetable stock
- a bit of salt

- 1** You first peel the red beet, carrot and potatoes and cut them into small cubes.
- 2** Then cook the vegetables in water, till they are tender.
- 3** While they are cooking add the cube of vegetable stock and a bit of salt.

Tip:

The soup tastes even better if you let it stand for a few hours and then rewarm it.



INGREDIENTS

Another rather easy, but delicious recipe my mother thought me, is her

Southern German style potato salad.

It is perfect as a side dish or appetizer.

- 1 big onion
- 1/2 big spoon sweet mustard
- 4 big potatoes
- 3 big spoons vinegar
- one cube of vegetable stock
- a bit of salt

- 1** Peel and cut the potatoes into big cubes. Cook them till they are tender.
- 2** In the meanwhile cut the onions into pieces.
- 3** Put half a glass of boiling water over the vegetable stock cube and mix it.
- 4** Afterwards mix it with the vinegar, the mustard and the salt.
- 5** Put the cooked potatoes, the mix and the onions into a big bowl and mix everything.
- 6** Then put into the fridge for an hour.



Co-funded by the
Erasmus+ Programme
of the European Union



This material was made during the project
“Building Youth Supportive Communities – Environment”
[2017-2-RO01-KA105-037748], an European Voluntary Service
project cofunded by ANPCDEF through the funds of
Erasmus+, a European Union Programme and implemented
in Romania by Curba de Cultură.