# THE GREEN FRAME

for a greener everyday life



Recommendations and advice to mitigate the impacts of climate change in households and office



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# The Importance of Mitigation and Adaptation to Climate Change

The Croatian Red Cross, as the oldest and the largest humanitarian organization in the Republic of Croatia, has the responsibility and the obligation to the society as a whole to take part in the awareness-raising efforts on the causes and the impacts of the global ecological crisis caused by climate change which has affected all sectors of the society, and provide practical advice to instigate positive changes with the aim of mitigating the negative consequences of climate change. One of our goals is to adapt to the ecological, economic and social changes caused by climate change.

According to the Climate Change Adaptation Strategy in the Republic of Croatia for the period to 2040 with a view to 2070, climate change is a growing threat in the 21st century and presents a challenge for humanity as a whole since it affects all aspects of the environment and the economy and endangers the sustainable growth of the society. Climate change affects the frequency and intensity of extreme weather (extreme precipitation, floods, soil erosion, landslides, storms, droughts, heat waves, fires) and gradual climate changes (an increase in air, water and soil temperature, water level rising, sea acidification, spread of drought areas). An irrefutable scientific and political consensus is that these changes are already taking place to a significant degree. The consensus is evident in numerous international resolutions and agreements that have been adopted. (Official Gazette 46/2020, 1.1.)

By 2100, a rise in temperature of 2°C above pre-industrial levels could, among other things, result in a sea level increase of as much as 81 centimetres, cause daily high temperatures to rise by 2.6 °C and bring about massive economic and health consequences. The Paris Agreement, therefore, mandates that almost all countries act in two ways:

- enact urgent measures to reduce greenhouse gas emissions with the aim to keep the rise in the global average temperature to below 1.5°C or 2°C above pre-industrial levels
- enact measures to adapt to climate change to minimize damages caused by climate change.
   (Official Gazette 46/2020, 1.1.)

The 2019 Intergovernmental Panel on Climate Change Report found that the current global warming trend is +1.1°C and will likely reach +1.5°C between 2030 and 2052 if greenhouse gas emissions continue to grow at the current rate. (Official Gazette 46/2020, 1.1.)

The effects of climate change depend on a variety of different parameters: geographic location, economic development and ecosystem vulnerability of an area. According to international climate modelling results, the Mediterranean region, which Croatia is a part of, has been identified as a climate "hotspot" that has already reached the average temperature increase of 1.5°C with significant impacts of climate change: extreme weather, drought area expansion, sea level rise. (Official Gazette 46/2020, 1.1.)

Harmful impacts of climate change are visible in numerous sectors and aspects of state functioning. In Croatia, the amount of reported damages from 2013 till 2018, i.e. during a six-year period, amounted to about 1.8 billion euro, or about 295 million euro per annum. For comparison, insurance claims from 1980 till 2013 i.e. during a 33-year period, amounted to 2.25 billion euro or 68 million euro per annum on average. Consequently, the exceptional vulnerability of the economy to the impacts of climate change can reflect negatively on societal development in general, especially on vulnerable groups. (Official Gazette 46/2020, 1.1.) This highlights the importance of

devoting considerable efforts and resources into adapting to climate change if we are to reduce the expenses related to damages caused by climate change in the future.

The Croatian Red Cross has recognized the issue of climate change as extremely important since its impact has an immediate effect on the health and security of people, which is certain to cause humanitarian crises in the future. The International Federation of Red Cross and Red Crescent Societies has also founded the Red Cross Red Crescent Climate Centre (RCCC), which focuses primarily on providing guidance and tools to National Societies and their partners with the goal of reducing the impacts of climate change and extreme weather events on vulnerable people.

Strategy 2030 of the International Federation of Red Cross and Red Crescent Societies called "Platform for change – Global reach, local action" highlights the reduction of current and future negative human impacts on climate change as one of the main goals of the Movement in the next decade. The topic of climate change is closely interlinked with all the activities of the Movement (health, first aid, disaster and crisis preparedness and response, helping the most vulnerable persons, migrations, social inclusion...), and according to the Strategy 2030 it must be intertwined into all activities of Red Cross and Red Crescent National Societies. In accordance with the Strategy and the principles of the Movement, the responsibility of the Croatian Red Cross is to play an active role in raising awareness of the urgent challenge we are facing via educational programmes and concrete actions related to prevention and mitigation of negative effects, with the goal of strengthening the resilience of local communities to climate change in the future.

Strategy 2030 also lists the five largest global challenges, four of which are in direct relation to climate change. These are:

- climate crisis
- an increase in the number of disasters and crisis situations caused by climate change
- access to health care and social services
- migrations.

This handbook contains practical advice that individuals can apply to bring about a positive and effective change of habits in their own households. The advice is also useful for organizations and companies that can, with minimal effort and expenses, educate their employees and encourage them to act along the guidelines set out in the Green Framework, resulting in a significant improvement to social responsibility, which also encompasses environmental responsibility. The changes listed are the backbone of sustainable development both on a local and on a global level. Sustainable environmental practices include: paper conservation, waste separation and recycling, energy conservation (electricity, heating, cooling etc.), efficient and economical use of computers, printers and copiers, water conservation, encouraging employees to travel green.

By introducing these practices in our households, we will change our behaviour and habits in the working environment as well, leading to changes that will help build a better future for all of us. Executive President of the Croatian Red Cross Robert Markt emphasized the importance of taking responsibility and doing our part to improve the living conditions for all individuals. To that end, we have prepared a selection of recommendations and advice relating to everyday life in the household and a variety of recommendations for doing business that can help in adaptation to and mitigation of harmful effects of climate change.

<sup>1</sup> International Red Cross and Red Crescent Movement (the Movement) is made up of three independent parts: International Federation of Red Cross and Red Crescent Societies, International Committee of the Red Cross and 192 National Red Cross and Red Crescent Societies

# THE GREEN FRAMEWORK

for a greener everyday life

Recommendations and advice for the mitigation of negative impacts of climate change in home and office environments



We can have a positive impact on climate change even in our own homes. By changing our everyday household habits, we can achieve great changes on a global scale. In order to truly accept the so-called green lifestyle and contribute to positive changes, it is paramount to begin changing ourselves and our families.

Waste reduction in your home should be considered as a common goal and task of all family members, but without a plan, it is difficult to put a concrete time limit on it. Goals that a household should meet in a certain time period should be accompanied by the rules that will help achieve those goals so as to facilitate the process of adopting the new habits. In addition to environmental benefits, the waste reduction habits will, over time, significantly reduce the monthly expenses and the number of items that are usually purchased on a whim or are simply unused.

Plenty more creative and practical solutions to reduce household waste can be devised by joint planning of all household members. Younger household members will find it easier to adopt new green habits. This will also induce the older members to change their own habits.

Households that decide to reduce the amount of waste they create can achieve remarkable results with a significant reduction of generated waste. This can be achieved with proper recycling, reduction of the number of products used by the household and with the minimum of inconvenience.

Reducing the amount of household waste takes planning. The process can be first started for one room in the house and then gradually expanded as the household members begin to adapt. The sections that follow will outline some of the advice for smooth transition to a green approach to household management, waste disposal, and financial savings. For each change introduced into the household, adhere to the basic principle – reduce the number of consumable products and the number of products used in general; donate; give away or recucle unused things, and plan the disposal of organic waste.

To begin with, there are five main points that can serve as a framework for introducing new rules into your household:

### 1. Donate, give away or sell the things you don't use

Do not buy things you don't really need. Items in good condition that you don't need anymore can be donated, given away or sold. Unused things can also be given away via several internet platforms promoting a circular economy.

#### 2. Plan the consumption of necessities

Plan the consumption of essential items to reduce the likelihood of impulsive purchases. To ensure the products are used for a longer time, try to buy them in larger packaging, especially the non-perishable foods or items without an expiration date.

## 3. Replace single-use products with alternatives

It is advised to replace single-use products with their reusable counterparts in order to reduce the amount of generated waste. Interventions like those will have a positive effect on the environment and result in significant savings as well.

# 4. Reuse existing things - recycle

Try to come up with ways to reuse things that cannot be used for their original purpose anymore. Segregate waste in separate containers according to the local waste management plans or instructions of waste disposal or green point centres. Paper, cardboard, plastics, metals and municipal waste are the most commonly segregated types of waste.

#### 5. Compost leftovers

If the circumstances allow, it is advisable to compost at home. Alternatively, separate organic waste containers also exist. In case none of the above is applicable, organic waste can be collected for local farmers or neighbours that grow fruits, vegetables or keep livestock for personal use. Kitchen waste, garden or green waste and minor organic waste (e.g. hair, tree bark, paper tissues etc.) can all be composted.

Grocery shopping is an everyday activity where we can considerably reduce the amount of generated waste. The habit of reusing shopping bags has shown to be a quick and practical way of reducing the number of plastic bags in households, considered to be among the worst polluting items.

Investing in canvas and washable bags, fruit nets and wet food containers further enhances the grocery shopping planning process. Reusing these items will become second nature over time, and this lifestyle takes only a few weeks to adopt.



# Grocery Shopping



The Kitchen

When discussing the needs of an average kitchen, it is best to start from the simplest changes – the replacement of single-use products with their reusable counterparts can be a long-term solution to reduce waste:



Replace plastic bottles with reusable bottles.



Use washable canvas bags instead of plastic bags.



Instead of paper towels, use cloth kitchen towels; for particularly soiled surfaces, use old rags or cut out pieces of old fabrics (e.g. bedsheets).



Replace rubbish bags with easily washable bins, waste separation containers, or use biodegradable rubbish bags.



Replace aluminium foils with reusable beeswax wraps.



Use reusable plates, utensils and cups instead of single-use products.



Replace food storage bags with washable containers.

When possible, buy food delivered by local producers and resort to packaged foods from the supermarket less often. In this way, you will reduce the use of single-use packaging. For example, by returning egg cartons, produce crates or small containers to producers, who will then reuse them, you will directly reduce the amount of single-use packaging in use.

Lots of supermarket products are sold in bulk or larger packaging that are more economical when comparing price per unit. Try to recycle glass jars and washable wet food containers for bulk products; also recycle nets and canvas bags for dry products.

In the later stages of the green household process, make time occasionally for the preparation of homemade products such as canned tomatoes and other vegetables; make homemade jams from homegrown fruit; prepare tasty spreads, pâtés, sauces, and other products. By preparing your own food, you use up large amounts of ingredients that would spoil otherwise, resulting in needless waste and expense.

## The Bathroom

After the kitchen, the bathroom generates the most household waste. Most of the single-use products are used in the bathroom. Some of the useful alternatives to single-use products are:



Washable cotton pads for face cleansing instead of single-use pads and wet wipes.



Multipurpose soaps instead of multiple separate products for washing of various body parts.



Natural clay mixed with nourishing ingredients can be used as a homemade facial mask.



Instead of using hairspray, lemon water in a spray bottle can provide the same results as store-bought hairsprays.



Cornstarch can replace dry wash shampoo.

As with the kitchen, make use of the Internet and try out various recipes for natural cosmetics and save money.



# Cleaning and Reuse of Waste for Economical Housekeeping



Household cleaning nowadays typically implies the use of a wide range of chemical products with narrow use for each. This leads to households using more of the products, thus creating large amounts of plastic waste with environmentally harmful residues. There are alternatives to chemical cleaning products that are cheaper and will achieve equal results with smaller amounts of product:



A mixture of baking soda and vinegar as a drain cleaner and limescale remover.



Vinegar removes mould and acts on set-in stains on various surfaces.



For set-in stains on textiles use washing-up liquid, chalk, lemon or vinegar.



Baking soda is a good cleaning product.

You can save more by buying longer-lasting dish sponges, scrubbing brushes, liquid soaps or multipurpose cleaners. Use old toothbrushes to clean smaller nooks and crannies and make old fabrics into rags for floor and surface cleaning. Instead of using air fresheners, air the room by opening windows and buy plants that absorb toxins and purify the air. You can water plants by collecting water in a bucket, such as when waiting for the shower water to warm up or when washing fruits and vegetables in the kitchen. When unused, leave the bucket outside so that it collects rainwater, which is very beneficial for the growth and development of plants.

E-waste is one of the largest issues in the modern world, which is why this kind of waste (e.g. batteries) must be segregated into appropriate containers. Also, replace the light bulbs in your household with energy-saving ones, and single-use batteries with rechargeable batteries.







Socially responsible business practices refer to concern the behaviour of organizations towards the environment and society. The so-called green business practices have also gained in popularity. The latter term refers to a model adopted at the organization-wide level, in addition to a set of decisions and measures integrated into day-to-day business, with the goals of mitigating the negative impact on the environment and the sustainable use of natural resources.

Organizations that want to make a transition to green business practices, can create small and subtle changes that will have a beneficial effect on the environment and the goods and services market. During the adoption process of green business practices, all employees should follow a smaller number of specific and well-defined goals (for example: stopping the use of single-use plastic cups, relying on natural light instead of artificial lighting, duplex printing). Over time, new and more complex goals can be introduced for further adaptation (digitalization of all documentation as permitted by regulations, encouraging the use of public transport).

A handbook written by the United Nations Development Programme Croatia, the Ministry of Economy and Sustainable Development, the Environmental Protection and Energy Efficiency Fund and Global Environment Fund called "The Green Office Handbook", served as the inspiration for the chapter the Office in the Green Frame, in the document called The Green Frame – for a greener everyday life, which provides practical advice on making offices greener.

Positive changes in accordance with green business practices can be integrated into all business processes of an organization. A selection of practical suggestions and advice for certain business segments can be found in the following sections.

### Green Choices

Sustainability is only possible if the organization adopts a firm decision and a commitment to implement the steps that can improve all segments of doing business.

Sustainable development principles have to be integrated into strategic plans and management decisions. They should be taken into account when applying for projects or during the procurement of office supplies and equipment.



#### PRACTICAL TIPS FOR GREEN CHOICES:



Evaluate the starting point of the organization.



Define the goals that the organization should achieve to become sustainable: short and long-term; realistic and doable.



Monitor the improvements and revise the decisions if there are no results.



Ensure a supportive environment; put up prominent instructions for the use of equipment, paper, electricity, water, and purchase waste separation bins.



Implement a reward system for the employees and/or other organizational structures (e.g. departments) that contribute with sustainable business practices.



Integrate sustainable development principles into strategic documents and decisions.



Carry out green procurement by purchasing products and services with environmental benefits or the least harm to the environment, health, and safety compared with other potential vendors. Re-evaluate your vendor list.

# Office Equipment



Computers, printers and copiers have become an indispensable part of day-to-day business in almost all organizations. Try to purchase equipment with stand-by modes and auto-shutdown features to aid the transition to green business. Additionally, try to purchase an all-in-one device with copier, scanner, printer, and emailing capabilities to eliminate the need to use separate devices<sup>2</sup>. Power off the devices that are not being actively used. Encourage your employees to use the devices as per the manufacturer's recommendations to reduce energy use.

Efficient and economical use of computers is a necessary step forward that organizations have to take if they are aware of the significance of green business. EPA<sup>3</sup> offers an online calculator that can be used to estimate energy savings if "power saving mode" was enabled on computers. The organization estimates that if all the computers in the US used power management features, the reduction in terms of CO2 emissions would be equivalent to taking 1.5 million vehicles off the road.

<sup>2</sup> Fadljević, Dunja; Kremenjaš, Jelena; Sučić, Boris; Bišćan, Marko; Capek, Marko, 2009

<sup>3</sup> U.S. Environmental Protection Agency

The choice of printers for your organization depends on the type and nature of your day-to-day business. When choosing a printer, the important specifications to take into account are the number of pages that can be printed with a single cartridge, energy use, noise (measured in dB), printing speed and duty cycle<sup>4</sup>. Since copiers use the majority of energy for toner heating, keep the device on standby and definitely purchase devices with duplex printing functionality.

The annual amount of e-waste generated on a global level leads to a conclusion that this type of waste "grows three times as fast as the other types. Also, computer parts and screens also contain heavy metals that negatively affect the health of humans, plants and animals."5

PRACTICAL ADVICE FOR THE USE OF COMPUTERS, PRINTERS AND COPIERS:



Buy all-in-one devices.



Shut off devices that are currently not in use.



Increase the "duty cycle" of your equipment.



Recucle old hardware.



Purchase equipment with stand-by operation capabilities.



If printing textual data, use laser printers.



Purchase copiers with duplex printing functionality.



Purchase equipment from vendors that can guarantee handling of e-waste, or dispose of it properly on your own.

<sup>4</sup> Fadljević, Dunja; Kremenjaš, Jelena; Sučić, Boris; Bišćan, Marko; Capek, Marko, 2009.

<sup>5</sup> Fadljević, Dunja; Kremenjaš, Jelena; Sučić, Boris; Bišćan, Marko; Capek, Marko, 2009.

# Office Supplies

To make offices greener, before using certain office supplies, the potential of reusing and recycling those products should be evaluated. Office supplies such as plastic binders, staplers, adhesive tapes, or label tags can be replaced with environmentally friendlier alternatives. Use office supplies that can be reused and recycled.



#### PRACTICAL TIPS FOR ECO-FRIENDLY USE OF OFFICE SUPPLIES:



Replace plastic pens with biodegradable pens.



Remember that paperclips are as practical as staples with an added benefit – they can be reused.



Replace highlighters with coloured wood pencils.



Replace plastic sharpeners with wooden or metal ones.



Replace sticky tape with paper tape that is easy to recycle. The glue used in adhesive paper tapes is water-soluble, meaning it is 100% biodegradable, compared to synthetic glues used in sticky tapes.



Avoid taking notes on paper; do it on a computer instead. Try to avoid taking notes on self-adhesive stickers as they are non-biodegradable.

# Office Paper

Paper is the most commonly used office product and its production is a significant source of greenhouse gases. Paper is usually used for two purposes – for everyday tasks (letters, copies etc.) and the printing of publications and leaflets.

Producing a tonne of paper consumes four trees, 260,000 litres of water and 4100 kilowatt-hours of electricity; whereas the recycling of a tonne of paper consumes 180,000 litres of water, 2750 kilowatt-hours of electricity and not a single tree! Paper can be recycled up to seven times before it breaks down!

The reduction of the amount of printed documents is one of the major challenges faced by organizations wishing to implement a green office.



<sup>6</sup> Fadljević, Dunja; Kremenjaš, Jelena; Sučić, Boris; Bišćan, Marko; Capek, Marko, 2009.

<sup>7</sup> Mehinović, Hamid; Halilović, Armana; Mujezin, Hamdija, 2019.

#### PRACTICAL TIPS TO REDUCE PAPER USE:



Increase the use of e-mail and sharing of information via e-mail, whenever possible.



Place notes on efficient paper use in the vicinity of printers and copiers.



Print only when absolutely necessary and reduce the number of copies printed.



Use thinner paper (thinner paper is lighter and at the same time requires fewer resources and less energy to produce).



Use duplex printing if possible.



Compress (e.g. reduce font size) and check the contents before printing, so you don't have to print the same document multiple times.



Use efficient fonts such as Times New Roman or Arial – these fonts take up much less space.



Use the other side of the already used paper sheets.



Ensure there are marked paper recycling bins next to copiers.



Reduce the amount of physical documents in archives, create a personal computer archive and use modern and more efficient archiving technologies instead.



Bring laptops with the required materials to meetings.



Publish publicly accessible materials on your website or use mailing lists.



When developing promotional materials such as brochures and other publications, avoid coloured areas and large numbers of colours.



Violets, reds, and blues are difficult to remove in the recycling process - avoid them.



Use easily removable fasteners (paperclips instead of staples).



Purchase and use recycled paper.



Do not purchase paper with the following impurities: thermal paper, glossy/plastic coatings, plastic windows, glue etc.

# Smart Energy and Water Use

Lighting is an area where significant positive results can be achieved. In certain cases, the habit of turning on unnecessary lights is so ingrained and several steps need to be taken to prevent the wasting of electricity. This can be planned for while organizing the space, by taking into account natural light sources.



Great savings can be achieved by installing sensor-controlled lighting (turning the lights on and off depending on whether there are people in the room), and by replacing standard light bulbs with energy-saving bulbs (that can reduce expenses by up to 80% compared to incandescent bulbs in long-term use). Energy-saving light bulbs last up to eight times longer and use one fifth as much energy, but bear in mind that they are hazardous waste and as such must be responsibly disposed of.<sup>8</sup>

<sup>8</sup> Fadljević, Dunja; Kremenjaš, Jelena; Sučić, Boris; Bišćan, Marko; Capek, Marko, 2009.

#### PRACTICAL TIPS TO CONSERVE ELECTRICITY:



Switch off unnecessary lights.



Use natural light.



Replace standard light bulbs with energy-saving light bulbs.



Use Class A energy rating light bulbs and lamps.



Install sensor-based lighting (especially in hallways, toilets, and stairways) and lighting timers.



Adjust lighting intensity to the size and use of the room.



Keep the light bulbs and lamps clean. Impurities can reduce lighting output by as much as 50%.



Paint the walls in light shades.



Dispose of used light bulbs properly.



Use focused lighting for the lighting of outdoor areas.

Air temperature regulation significantly affects energy use. Measures to reduce energy use, compared with the increased use of energy from renewable sources, can have a marked effect on global warming and the reduction in total greenhouse gas emissions.<sup>9</sup>

According to a document by the Ministry of Physical Planning, Construction and State Assets of the Republic of Croatia called "Guidelines for Nearly zero-energy buildings", "the energy required for heating and cooling depends on the climate conditions at the location of the structure, architectural and physical characteristics of the structure, ventilation, and the intended use of the structure". <sup>10</sup>

<sup>9</sup> https://mgipu.gov.hr/UserDocsImages/dokumenti/EnergetskaUcinkovitost/Smjernice\_1\_dio\_nZEB\_mgipu.pdf

<sup>10</sup> https://mgipu.gov.hr/UserDocsImages/dokumenti/EnergetskaUcinkovitost/Smjernice\_2\_dio\_nZEB\_mgipu.pdf

#### PRACTICAL TIPS FOR AIR TEMPERATURE REGULATION:



Install thermostatic radiator valves.



Set programmable thermostats to 15°C when the office is empty, so the area does not cool down completely."



The optimal indoor temperature during the summer months is between 25 °C and 26 °C but, at the same time, the temperature difference between indoor and outdoor temperatures should not exceed 7°C for health reasons.<sup>12</sup>

Smart water use with the goal of conserving water requires a change of habits, the adaptation of infrastructure and good management practices. Water conservation is beneficial for the environment, our economy and our lifestyle.

By reducing water use, we can reap great benefits, such as: reduced expenses, lower energy use, higher property value and a boost to organizational reputation. Water use can be reduced by up to 50% if tap sensors are installed. Installation of dual-flush toilet tanks (with smaller and larger flushing capacities) can reduce water use from 9 litres used by conventional toilet tanks to 6 litres per flush.<sup>13</sup>

Adopt these water saving measures for the benefit of future generations and use only the amounts that are really necessary to avoid wasting limited resources.

#### PRACTICAL TIPS TO CONSERVE WATER:



Check the pipes, replace the grommets to prevent water leakages and insulate hot water pipes.



Ensure your appliances save water (dishwasher, washing machine) and use them correctly (when full).



Install low flow (dual-flush) toilet tanks or, e.g. try reducing the toilet tank volume by placing a 2-litre bottle filled with water in it.



Install a water pressure valve, as it protects the piping from bursting but also reduces water use (from about 5 to 15 per cent).<sup>14</sup>



Collect and use rainwater to water the plants and lawn around the office building.

<sup>11</sup> https://www.enu.hr/wp-content/uploads/2016/03/Vodič-kroz-Zeleni-ured-Priručnik.pdf

<sup>12</sup> https://www.enu.hr/wp-content/uploads/2016/03/Vodič-kroz-Zeleni-ured-Priručnik.pdf

<sup>13</sup> http://energis.ba/wp-content/uploads/2019/11/Priru%C4%8Dnik-za-od%C5%BEivo-pduzetni%C5%A1tvo.pdf

<sup>14</sup> https://www.tportal.hr/biznis/clanak/uz-ovih-devet-jednostavnih-savjeta-lako-mozete-prepoloviti-racune-za-vodu-foto-20190306



Use the refrigerator to cool water down (do not wait for cold water to start running by leaving the tap on).



Turn off the faucet while washing hands/brushing teeth - this can save up to five litres of water per person per day.<sup>15</sup>



Install faucet aerators to conserve water.16



Try to keep the plumbing free from limescale and soften the water, if it is hard. This increases the lifespan of appliances and conserves energy.



Do not throw away leftovers, medications, cigarette butts and other waste in the toilet as this can cause the drains to cloq and require the use of aggressive drain cleaners.



Instead of washing the dishes in the sink with the tap on, wash them in the sink that has been filled with water, and only rinse them under the stream of water. Use as little washing-up liquid as possible.

https://www.enu.hr/wp-content/uploads/2016/03/Vodič-kroz-Zeleni-ured-Priručnik.pdf

<sup>16</sup> A faucet or tap aerator is a stream regulator for water conservation

# Waste Management and Office Cleaning



The problem of waste management is one of the largest issues in the context of environmental conservation. In the Republic of Croatia itself, more than 1.3 million tonnes of municipal waste are generated annually.<sup>17</sup> In the context of global warming, the degradation of landfill waste is a great issue resulting in the emission of greenhouse gases, mostly methane, while waste incineration releases additional amounts of gases, mostly carbon dioxide and carbon monoxide.

In terms of energy conservation, it is important to stress that manufacturing from recycled materials reduces the amount of energy required. Using recycled instead of virgin materials reduces the need for mining, drilling, logging and other extractions that harm the environment and have an immediate effect on increasing greenhouse gas emissions.

The amount of water used during production is also reduced.

Waste segregation reduces the amount of conventional waste that gets disposed of in landfills, which in turn has a positive impact on reducing pollution. Additionally, it leads to financial savings since conventional waste disposal is a very costly process.

It is also worth noting that the recycling industry has the potential to create more jobs compared to the conventional waste disposal industry.

<sup>17</sup> https://mzoe.gov.hr/UserDocsImages/ARHIVA%20D0KUMENATA/SPU0/nadlezno\_mzoe/-nacrt\_prijed-loga\_plana\_gospodarenja\_otpadom\_republike\_hrvatske\_za\_razdoblje\_2016-2022.pdf

PRACTICAL TIPS FOR WASTE MANAGEMENT (REDUCTION, SEGREGATION, AND RECYCLING):



Reduce the generation of waste and rubbish.



Invest in longer-lasting products that will result in savings in the long term.



Avoid pre-packaged food and products and purchase products without or with minimum packaging (e.g. loose products) and/or returnable packaging.



Buy products in large packaging, products made from recycled materials or products with a high share of recycled material and products in recyclable packaging.



Purchase products from vendors that can guarantee safe disposal of e-waste.



Buy products in refillable containers and products that can be upgraded.



Buy products without artificial colourings. 18



Segregate waste materials into the corresponding categories.



Compost - "organic waste in Croatian households comprises about 30% of the total waste; by separating it, we can reduce the amount of waste in landfills by a third". 19



Use washable and reusable containers and dishes.



Repair broken appliances instead of replacing them, and buy only the absolutely necessary appliances.



Donate unwanted or unnecessary items and appliances.



Buy and use rechargeable batteries.



Buy local and seasonal products and produce.



Resist media influence that promotes unnecessary consumption (forced trends etc.).

<sup>8</sup> https://www.enu.hr/wp-content/uploads/2016/03/Vodi%C4%8D-kroz-Zeleni-ured-Priru%C4%8Dnik.pdf

<sup>19</sup> http://goo.hr/wp-content/uploads/2019/10/KAKO-STVARATI-MANJE-OTPADA-vodic-za-gradjane.pdf

Office cleaning is one of the ways to introduce sustainability into our day-to-day business. Many conventional cleaning products contain chemicals that have a negative impact on the environment (people, wildlife, plants). Cleaning products are typically washed down the drain and even though water treatment facilities can get rid of some of the contaminants, they often end up in waters (rivers and lakes), soil, and wildlife.

#### PRACTICAL TIPS FOR GREEN CLEANING:



Make a list of products you use and verify whether they are environmentally friendly. Revise the list afterwards and use products containing environmentally friendly ingredients in the future.



Use rags instead of paper towels.



Use biodegradable products.



When buying cleaning products, always verify that they contain environmentally friendly ingredients.



Avoid products that use phosphates, chlorine, artificial fragrances, and artificial colours.  $^{20}$ 

<sup>20</sup> https://www.bioenergyconsult.com/stay-green-with-office-cleaning/

# The Office Without Single-Use Plastics



The increase in plastic manufacturing on a global scale, amounting to approximately 100 million tons annually, does not only impact the environment but also greatly accelerates the process of global warming. Almost all plastic is produced from fossil fuels – oil and natural gas. The extraction of raw materials, transport, and plastic manufacture generates billions of tons of greenhouse gases. As much as 4% of the global oil production is used as raw material for the manufacture of plastics, and a further 4% is used during the production process.

It is difficult to imagine a modern office without devices, supplies and items without plastic-made products, in whole or at least in part. In spite of that, there are several ways to reduce or eliminate the use of single-use plastics. Stopping the use of single-use plastics has a multitude of positive effects. Aside from generating less pollution and requiring less waste disposal efforts, the need for the manufacture of plastics is reduced as well.

#### PRACTICAL TIPS FOR SINGLE-USE PLASTIC-FREE BUSINESS:



Replace plastic cups with reusable tea, coffee and water cups.



Use reusable utensils instead of plastic forks, knives, and spoons.



Try to give preference to environmentally friendly office supplies during procurement.



Stop the use of plastic coffee pod machines.



Use canvas bags instead of single-use and plastic bags.



Segregate waste (paper, plastics, metal, glass, organic waste).



If purchasing a device or other plastic-containing materials, opt for higher quality products. Despite being more expensive, these products last longer and can be more easily repaired, so they do not need replacing as often.

# Transport

Transport, especially road transport, is the largest global contributor to environmental and health issues. As a whole, on a global scale, road transport has increased by 80% in the last 20 years. Various gases are produced by road transport vehicles, such as nitrous oxide, sulphur dioxide, and carbon dioxide, that contribute to the increase in greenhouse gases and global warming. The use of some kind of vehicle is unavoidable in day-to-day business, be it for transportation or the provision of services. For many employees, using road transport is an unavoidable way of commuting to work.

The reduction in car use results not only in environmental, but also financial benefits. By organizing a portion of meetings online instead of in person, greenhouse gas emissions are reduced since burning a litre of petrol produces about 2.4 kilos of carbon dioxide; the figure for diesel is 2.7 kilos per litre.<sup>21</sup>



<sup>21</sup> http://www.enu.fzoeu.hr/assets/files/shared/list/zuPrirucnik.pdf

#### PRACTICAL TIPS FOR SMART USE AND ORGANIZATION OF TRANSPORT:



If possible, travel to work on foot, by bike, or using an electronic vehicle. If the destination is too far away, cover at least part of the route on foot, by bike, or using an electronic vehicle.



Ensure availability of bicycle parking spaces.



Use public urban transport.



When filling up your car, choose higher-quality fuels that cause less harm to the environment and avoid overfilling the tank as spilt fuel evaporates and emits harmful substances.



To improve fuel economy, empty the boot and remove roof racks and boxes.



Drive at an optimal speed and regularly check your tyre pressure.



Try to organize carpooling and plan out the most fuel-efficient route to and from work.



Limit the number of business trips and promote and organize virtual meetings and teleconferences. In this way, you will reduce your expenses and carbon footprint while saving time



Use email to send documents, invitations, cards and other documentation that does not necessarily need to be posted.



Telecommute when possible.



When purchasing or replacing a vehicle, choose the more environmentally friendly option, taking into account fuel consumption and the required size of the vehicle.



Regularly maintain your vehicle; if replacing parts or vehicles make sure they are disposed of properly.

### Food



We spend the larger part of our days in offices and often consume more than one meal while at work.

The habit of eating "on the go" creates large amounts of packaging waste. Through meal planning, the use of single-use plastic can be cut down to a minimum, which is beneficial both for our health and the health of the planet. For example, single-use disposable hot cups are difficult to recycle due to their thin plastic protective layer. Teabags also contain plastics making them impossible to recycle. Cattle farming emits large amounts of methane, a very harmful greenhouse gas, considered to be responsible for 2-3% of total global warming (Grbeša, 2008). The production of meat, dairy, and meat products is more harmful to the environment compared with plant-based food production.

#### PRACTICAL TIPS FOR THE ORGANIZATION OF FOOD AND REFRESHMENTS AT THE WORKPLACE:



Plan your meals in advance and prepare them at home to avoid the use of single-use plastics and save money at the same time.



Brew tea, coffee, or other hot drinks at home and bring a thermos or bring a reusable mug for coffee or tea to go; ask the barista to serve the drinks in the mug.



When ordering food, do it as a group; if possible, you can try to arrange for the food to be delivered in the packaging supplied by yourself.



Stop the use of plastic coffee pod machines as pods are almost impossible to recycle since they cannot be thrown out into plastic bins.



Do not brew tea from teabags; it is possible to brew tea from loose leaves instead of teabags in an office kitchen.



If no utensils or reusable dishes are present, bring them from home or ask the employer to buy them.



When choosing what to eat, try opting for plant-based and/or locally grown seasonal food.



Avoid processed foods - buy fresh groceries.



For business events, plan the menus with as little meat and dairy as possible and give vegetarian and/or vegan products a chance.

### Proper Disposal of Personal Protective Equipment



During the coronavirus pandemic, personal protective equipment has become a part of everyday life for people all around the globe. Personal protective equipment is currently being produced around the world in enormous amounts so that humanity can cope with the COVID-19 pandemic. After it is used, it invariably ends up in the trash.

After use, properly dispose of the equipment in the corresponding waste containers. Personal protective equipment comprises: face masks, disposable rubber or latex gloves, surface cleaners and disinfectants, and hand disinfectants. Surface cleaners and disinfectants are used to ensure the surfaces and areas are kept sanitary, whereas hand disinfectants are used to sanitize hands. Disinfectants act against bacteria, viruses, and yeasts as per the manufacturer's recommendations.

Disposed face masks are both a short- and long-term environmental risk. "In addition to non-woven fabric and activated carbon, medical face masks also contain large amounts of polypropylene (PP), which is a type of commodity plastic that takes a long time to degrade (hundreds of years) and releases a lot of toxic substances during the process." There were cases where masks would clog

<sup>22</sup> https://www.greenpeace.org/international/story/44629/where-did-5500-tonnes-of-discarded-face-masks-end-up/

urban sewers, and when disposed of in rubbish bins, they will most often end up in the environment where they would not degrade for decades, affecting the entire ecosystem. It should be stressed that disposed single-used masks and single-use gloves are particularly harmful to animals that can mistake them for food or get tangled into them. What is especially worrying is that they pollute drinking water, seas, and oceans. More than 1.5 billion single use masks ended up in rivers, seas, and oceans in 2020.<sup>23</sup>

#### PRACTICAL TIPS FOR THE DISPOSAL OF PERSONAL PROTECTIVE EQUIPMENT:



Prior to disposal, used masks should be placed in a plastic bag which is then tied and finally disposed of in a mixed waste container.



Used masks must not be disposed of without the corresponding plastic covers or in sorted waste containers.



Once used, protective gloves should be placed in a plastic bag which is then tied and finally disposed of in a mixed waste container.



Disinfectants are usually packed in plastic containers. Empty containers should be rinsed and then disposed of in bags for plastic or metal waste or in yellow bins.

If disinfectant containers are marked as hazardous, they should be disposed of in the recycling centre.





RED CROSS LOCAL BRANCHES in the Green Frame



### Recommendations for the Organization of Red Cross Programmes and Activities

"Be the change that you wish to see in the world," said Mahatma Gandhi. This should be the guiding principle when advocating for change and promoting the adaptation to and mitigation of the impacts of climate change, which is one of the responsibilities of the Red Cross.

Though the Croatian Red Cross local branches can also rely on green business principles in their operations, they also carry out various activities that are specific to Croatian Red Cross programmes. In order to advocate for change, we ourselves have to strive to adopt green business principles to the greatest possible extent. Below is a list of advice for the specific activities carried out by the Croatian Red Cross local branches:



When organizing voluntary blood donation and meals for donors, avoid using plastic cups and utensils.



Ensure there are washable glasses and utensils for the youth club and elderly day



As part of the Home Care programme, encourage beneficiaries to segregate waste, recycle, and use energy efficiently.



Travel by bike whenever possible when visiting beneficiaries of the Home Care programme.



Distribute relief parcels in cardboard boxes and resealable bags that can be recycled.



Encourage beneficiaries to get the relief parcels on their own; when this is not possible, plan the most efficient delivery route.



Whenever possible, hold online meetings to avoid unnecessary travel.



Use local ingredients to prepare food and also prepare meat-free meals.



Do not use single-use containers for serving the food to beneficiaries.



Reuse existing materials for workshops. One-side used paper still has the other side that can be used.



After first aid courses and preparations for the Croatian Red Cross Youth Competition, store used materials such as bandages, sterile gauzes, and other medical supplies, so they can be used for future courses and preparations.



Choose environmentally friendly products as prizes for volunteers and gifts to partners.



Organize and take part in green drives, for example community clean-ups or tree planting.



Ensure bicycle parking space for volunteers, beneficiaries, and employees.



Organize workshops and seminars on the topic of climate change.

Based on the recommendations provided by the Croatian Red Cross for the Croatian Red Cross local branches, come up with a list of concrete guidelines and recommendations that will encourage alternative means of holding and organizing a variety of green activities, in line with the specific business practices.

# ADDENDUM Self-assessment Questionnaires

In the next few pages you can find a questionnaire for the self-assessment of green business in your organization and a series of questionnaires that you can use to assess the green practices in your organization or household after introducing green changes. Answer the questions by ticking  $\checkmark$  the column that best reflects the current situation in your office or at home. If you answered  $\uppha10$  to some of the questions, try to introduce certain changes to adapt your practices and contribute to the prevention, mitigation and adaptation to negative impacts of climate change.

INITIAL ASSESSMENT OF GREEN BUSINESS PRACTICES IN YOUR ORGANIZATION	YES	no	NOT APPLICABLE
Until now, have you ever carried out a green business assessment in your organization?			
Do you have a plan for recycling and waste disposal?			
Do you have waste segregation containers (for paper, metal, glass, plastics, organic waste)?			
Do you prominently display instructions for the recycling of all materials?			
Do employees, volunteers, and beneficiaries segregate waste into appropriate containers?			
Do you educate employees and volunteers on green business practices?			
Do you reward employees and volunteers who contribute to green business practices?			
Do you carry out green procurement (e.g. purchase of energy-efficient IT equipment, purchase of 100% recycled chlorine-free paper, purchase of LED lighting etc.)?			
Do you prominently display instructions on rational use of electricity, heating, cooling, water, paper, cleaning products, etc.?			
Have you introduced your employees and volunteers to "the Green Frame – for a Greener Everyday Life", document by the Croatian Red Cross?			

## Self-assessment of green business in your organization after introducing green business practices:

OFFICE EQUIPMENT	YES	no	NOT APLLICABLE
Do you switch off the equipment when they are not actively used?			
Do you repair malfunctioning equipment?			
Do you purchase or use equipment with low power mode feature?			
Do you purchase or use equipment with duplex printing feature?			
Do you properly dispose of toners, batteries, and other e-waste?			

OFFICE SUPPLIES	YES	no	NOT APPLICABLE
Do you share a majority of your documents electronically/online?			
Do you print only what is absolutely necessary?			
Do you use duplex printing?			
Do you print most of your documents in grayscale?			
Do you check your documents before printing?			
Do you archive documents that do not have to be stored in paper form on the computer or on the internet?			
Do you use easily removable fasteners (paperclips instead of staples)?			
Do you reuse paper for other purposes?			

ENERGY	YES	no	NOT APPLICABLE
Do you turn off unnecessary lighting?			
Do you use energy-saving bulbs?			
Do you properly dispose of used light bulbs?			
Do you keep the light bulbs clean?			
Do you rely on natural light instead of artificial lighting whenever feasible?			
Are the walls painted with light colours?			
Are thermostats fitted in your building?			
Is the office temperature set optimally to ensure maximum comfort with minimum energy use?			
Do you heat/cool only the rooms that are actively used?			
Heating/cooling appliances are not obstructed by furniture, curtains or other items?			
Do employees and volunteers ensure that doors and windows are closed when cooling/heating systems are in use?			
Are the HVAC (heat, ventilation and air conditioning) systems maintained regularly?			

WATER	YES	no	NOT APPLICABLE
Are water meters installed?			
Do you turn off the tap when applying soap?			
Do you turn off the tap while you are doing the dishes when you do not need the water for rinsing?			
Do you have low-flush toilet tanks installed?			
Do you regularly maintain faucets and toilet tanks to prevent leaks?			
Do you cool drinking water in the fridge?			
Do you use optimal amounts of washing-up and cleaning liquid?			

WASTE REDUCTION AND RECYCLING	YES	no	NOT APPLICABLE
Do you have paper recycling boxes in your office?			
Do you have plastic and metal recycling containers in your office?			
Do you have glass recycling containers in your office?			
Do you have organic waste containers in your office?			
Do employees, volunteers, and beneficiaries segregate waste into appropriate containers?			
Do you use kitchen towels instead of paper towels?			
Do you buy products with recyclable packaging?			
Do you donate products and items that will not be used anymore?			
Do you purchase locally-made products?			
Do you use canvas or biodegradable bags?			

TRANSPORT	YES	no	NOT APPLICABLE
Have you enacted any measures to encourage the use of public transport, electric vehicles, or carpooling to and from work?			
Do most of your employees travel to work on foot, by bike, with an electric vehicle or using public transport?			
Do you have bicycle racks?			
Are company cars regularly maintained?			
Do you turn on car heating and cooling only when necessary?			
Do you organize virtual meetings?			
Do you travel only when absolutely necessary?			

FOOD	YES	no	NOT APPLICABLE
Do you use reusable utensils and cups?			
If you order food, do you do so as a group?			
Do you use loose tea or coffee?			
Do you purchase seasonal groceries?			
Do you mostly offer plant-based food in event menus?			

PERSONAL PROTECTIVE EQUIPMENT	YES	NO	NOT APPLICABLE
Do you correctly dispose of single-use masks and gloves?			
Do you rinse plastic containers used for disinfectants before disposal in plastic recycling containers?			
Have you installed refillable hand disinfectant devices?			

## Additional questionnaire for the assessment of green business practices while organizing or during the Croatian Red Cross programmes:

EXECUTION OF PROGRAMMES, ACTIVITIES AND DRIVES OF CROATIAN RED CROSS LOCAL BRANCHES	YES	no	NOT APPLICABLE
Do you use reusable utensils and cups during voluntary blood donation events?			
Do you keep non-contaminated medical supplies after the first aid courses or Red Cross Youth Competitions?			
Do you correctly dispose of medical waste?			
Do you ensure there are reusable glasses and utensils in the youth club and adult day care?			
Do you reach your beneficiaries on foot, by bike, with an electric vehicle or using public transport?			
Do you invite your beneficiaries to pick up their aid parcels on their own?			
Do you plan out the delivery routes for humanitarian aid to beneficiaries that are unable to pick it up on their own?			
Do you use washable containers for distributing food to beneficiaries?			

Do you organize or take part in green drives (e.g., community clean-ups or tree planting etc.)?		
Do you organize trainings, workshops, round tables and forums on the topic of climate change and environment?		
Do you use already existing materials for trainings and workshops (e.g., writing on the other side of a used sheet of paper)?		

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