

Staff guide for a GREENUNESCO





2021



This guide has been written by staff for staff.

It is based on the "Staff Guide to Greening UNESCO" elaborated in 2010 by the Greening UNESCO voluntary staff group and has been completely reviewed and updated by Young UNESCO in 2020, in collaboration with the Environmental Management Working Group, and under the overall guidance and coordination of the Sector for Administration and Management.

Special thanks go to Amandine Callens, Catarina Das Neves Batista Cerqueira, Dana Birkdar, Ellen Ledger, Jamel Eddine Ben Abdallah, Kristina Balalovska, Lily Caitlin King, Manon Frezouls, Oliver Juan, Rita Doroszlai, Thomas Roeder and Xiangling Chen for contributing to drafting specific chapters; to Bernard Combes, Juan Pablo Ramirez-Miranda and Rudi Swinnen for their review and helpful comments; to Marissa Potasiak and Lily Caitlin King for editing; to Frank Drouet for the design and to Oliver Juan and Miriam Tereick for the overall coordination and review.

This is a living document that we will try to update with new tips and information on a regular basis.

The guide is targeted at UNESCO staff and interested stakeholders. The ideas and opinions expressed are those of the authors; they are not necessarily those of UNESCO and do not commit the Organization.

Out of environmental considerations, this guide has not been printed and is being disseminated in digital format only.

Get involved

If you want to get involved in one of UNESCO's greening groups, or if you have any questions regarding this guide or environmental management at UNESCO in general, please send a message to <u>environment@unesco.org</u> (coordinated by the Executive Office of the Sector for Administration and Management).

To be kept up to date on environmental action within UNESCO and learn more about UNESCO's Environmental Management System, please regularly check the dedicated intranet page: <u>https://unesco.sharepoint.com/sites/sustainable-unesco</u>

New developments and activities are also being shared through the Organization-wide newsletter entitled "News on Environmental Management at UNESCO", so watch your inbox!



Cover photo: Biodiversity garden at UNESCO Headquarters, summer 2020 © UNESCO/Nigel Crawhall, modified by Frank Drouet. Illustrations: WinWin artlab @ shutterstock

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A green UNESCO is within our reach

In order to reach the goals of the Paris Agreement – and limit the rise in global temperature above pre-industrial levels to 1.5°C – every single action counts, be it at the individual, organizational or societal level. UNESCO has a special role to play, with a mandate focused, in part, on promoting sustainability through education, sciences, culture and communication and information. At the same time, it is important that UNESCO also 'walks the talk', both at the institutional and at the individual level, to be a leader in the area of environmental sustainability and contribute actively to achieving the Sustainable Development Goals.

In 2019, UNESCO committed to implementing the <u>Strategy for Sustainability</u> <u>Management in the UN System 2020-2030, Phase I: Environmental Sustainability</u> <u>in the Area of Management</u> and in particular to setting up an **Environmental Management System**, which requires a set of changes at organizational level in order to fully integrate environmental sustainability into all policies and practices and, hence, to "green" UNESCO's facilities and operations. Many of these organizational changes are already under way.

However, like all organizations, UNESCO is primarily made up of people, and radical change cannot be achieved without UNESCO's most valuable asset: its staff.

There are **many small actions that each of us can take** to make UNESCO and our planet a little greener, every day. The contributions that each staff member can make and the impact of these actions may vary. Some actions can yield surprisingly large results, while some may be less effective than we might think. We have put together this guide to help UNESCO's staff and the entire UNESCO family embark on a journey to make our professional as well as our personal lives more sustainable.

The purpose of this guide is to foster green behaviour across UNESCO as a whole. The staff of UNESCO, as well as other concerned individuals, will find **concrete tips** on how they can reduce their environmental footprint by **taking action in their daily work** and, hence, actively contribute to greening UNESCO. The guide contains nine parts - from commuting, to office life, to events and missions, to greening our homes. I also includes, in **green** and **red boxes**, good practices or specific recommendations addressed to staff at **Headquarters** – or HQ – and our vast Field network – also known as **Field Offices (FOs)** – throughout the guide, while **blue boxes** provide further information about **data or policies at UNESCO as a whole**.

We invite you to join us in this endeavour and hope you find this publication to be a useful guide on our greening journey!



UNESCO's Greenhouse Gas Emissions

Every year, UNESCO conducts an **environmental inventory** in the framework of the UN System sustainability initiative "<u>Greening the Blue</u>" In this exercise, all Sectors, Offices and Category I institutes need **to report data related to travel** (both air and ground travel, undertaken by staff and non-staff, such as conference participants, if the travel has been paid for partially or in total by UNESCO), **electricity and energy consumption** of their facilities, as well as to **water and waste management**. Based on this data, UNESCO's overall environmental footprint and greenhouse gas emissions are calculated.

In 2019, UNESCO emitted **29 075 tonnes of CO2 eq.** which represents a carbon footprint per capita of 7.11 tonnes of CO2 eq., which is above the UN average of 6.5. Nearly half of these emissions came from air travel (49%), 37 % from facilities (mainly purchased electricity) and 14% from nonair business travel (see <u>next page</u> for emissions by region). In 2020, UNESCO purchased Certified Emission Reduction credits (CERs), in order to **offset all its 2019 emissions, making it 'climate neutral' for the first time**.

Words and phrases that will help you read the guide¹

Greenhouse gas (GHG) emissions²:

Diffusion of gaseous constituents that trap heat in the atmosphere and eventually lead to climate change. The effect of GHG on the climate depend on their abundance in the atmosphere and the type of gas that is released. In 2018, out of all greenhouse gas emitted in the atmosphere, approximately 80% was carbon dioxide (CO₂), 10% methane, 7% nitrous oxide and 3% fluorinated gases.

Climate change:

A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that can be observed over comparable time periods.

Global warming

The gradual increase over time, observed or projected, in the surface temperature of the Earth, as one of the consequences of the emissions released in the atmosphere as a result of human activity. In September 2020, the Earth's temperature was at around 1.1°C above the preindustrial average. The goal of the Paris Agreement is "to limit global warming to well below 2, preferably to 1.5 degrees Celsius."³

Carbon footprint:

A sum of the total amount of emissions of carbon dioxide (CO₂) that are directly and indirectly generated by an activity or service, or which are accumulated over the life stages of a product. To assess the carbon footprint of an organization, there are three footprint "scopes" to examine⁴: scope 1 encompasses all direct emissions (e.g. within the premises, caused for example by an electricity generator), scope 2 includes indirect emissions (e.g. electricity purchased and videos streamed) and scope 3 covers all other indirect emissions (sources that the organization is not aware of or does not control, such as those related to staff travel or delivery vehicles).

Carbon neutrality:

Zero net emissions of atmospheric carbon dioxide (CO_2) by an organization, an industry, a project, a product or a service. It is generally achieved when this entity decides to offset carbon emissions to make up for its polluting activities: one way to do so is to financially support certified projects that avoid emissions for example by generating renewable energy (the emissions that are avoided are sold as "offset credits", where one credit corresponds to 1 tonne of CO_2).

Climate neutrality:

A concept that designates an objective beyond carbon neutrality by including in the equation the net emissions of CO₂ AND other greenhouse gases (such as methane, nitrous oxide). The latter are then usually calculated as "CO₂ equivalents" or "CO₂ eq".

Environmental Sustainability⁵:

One of the three pillars that constitute sustainable development (together with economic and social sustainability). It focuses on achieving a rate of resource use that does not exceed the rate of resource regeneration, a rate of waste disposal that does not exceed the assimilative capacity of the environment and a rate of depletion of non-renewable resources that does not exceed the development of renewable substitutes for that resource.

Greening:

The act of making an organization or individual "more aware of issues connected with the environment"⁶ and "more active about protecting the environment."⁷

UNESCO GHG emissions in 2019

in absolute numbers (HQ separate)



per capita (HQ separate)



1 Unless stated otherwise, all definitions are based on the UNTERM portal.

- 2 Definition based on <u>EPA. Overview of Greenhouse Gases</u>.
- 3 UNFCCC The Paris Agreement.
- 4 GHG Protocol, <u>Overview of GHG Protocol scopes and emissions across the value chain</u>.
- 5 Definition based on Daly, H. E. 1990. Toward some operational principles of sustainable development. Ecological Economics 2:1-6.
- 6 Definition based on Oxford Learner's Dictionary.

⁷ Definition based on Cambridge Dictionary.



Our daily commute is one of the greatest opportunities to reduce our carbon footprint. The COVID-19 pandemic has inspired many cities around the world to rethink their transportation systems and strategies, for example by improving the infrastructure of cycling paths. This means that some of us have more opportunities than ever to green our commute!

SOLUTIONS

- If you live relatively close to your office (<10 km), and if it is safe in the city in which you live, the healthiest, most sustainable and least stressful modes of transport are the ones that use your own resources: walking, biking or using a non-electric scooter.
- If you live less than 4 km away from your office and the conditions allow, walking to and from work is the best way to stay fit, clear your head, and enjoy your surroundings.⁸
- If you live in the suburbs or further away from the office, you may be able to use public transport. In addition to cutting emissions, commuting by public transportation is generally considered safer, faster and less expensive than commuting by car. No daily fuel and parking expenses, and more time for other activities, such as reading!
- If your circumstances mean that driving is your only option to come to the office, consider carpooling with family, friends and colleagues to reduce your combined carbon footprint. Either check out the already existing apps that do this like <u>Waze Carpool</u>, <u>Scoop</u>, <u>Comovee</u> or set up a carpooling initiative yourself. Choose an **electric** car over a thermic or hybrid model and make sure you **eco-drive**: ensure that your tires are filled correctly, maintain steady speed, avoid air-conditioning and avoid idling.⁹

Once you have reached the building, consider taking the stairs to your office. You will save on energy and increase your daily share of physical activity.

НО

At Headquarters, there are several ways you can enhance your commute:

Biking: Activate your badge in the Badge Office to get free access to the sheltered parking space under Building 3.

Vélib: This well-established network of shared bicycles now gives access to 20,000 bicycles and 1,200 stations. Subscriptions go from 3.10 euros (mechanical bikes only, 30 minutes per ride) to 8.10 euros (including electrical bikes, up to 45 minutes per ride) per month, otherwise you can pay 1€ per ride anytime.

Electric scooter: Be it <u>Dott</u>, <u>Lime</u> or <u>Tier</u>, electric scooters are a great way to move from one place to another quickly. The prices vary from 1 euro + 12 cents per minute to 1 euro + 20 cents per minute.

Carpooling: Plenty of new apps in Île-de-France have emerged to facilitate commuting through carpooling. Three active apps that do this are <u>BlablaLines</u>, <u>Klaxit</u>, <u>Karos</u>.

Public transport: Whether you take the bus or metro, the city of Paris has provided <u>several</u> infographics on how much you can save in terms of money and emissions by taking public transportation.

Pollution, budget and time Comparison on a 2.6 km trip in Paris¹⁰



8 Generally speaking a distance of up to 4 km is considered reasonable for walking, and up to 10 km for cycling. Dublin Transportation Office; Kirklees Metropolitan Council; Irish Energy Centre (2001), The Route to Sustainable Commuting. An Employer's Guide to Mobility Management Plans.

⁹ UNEP (2008), CCC - Kick the Habit: A UN Guide to Climate Neutrality.

DID YOU KNOW?

- Globally, transportation (including by road, air, rail and sea) is the fourth biggest cause of GHG emissions and almost all (95%) of this energy comes from petroleum-based fuels, largely gasoline and diesel.¹¹
- Around one third (2.2 million) of the world's 7 million premature deaths each year from household (indoor) and ambient (outdoor) air pollution are in the Asia Pacific region home to one quarter of the world's population.¹²
- Climbing stairs prevents heart disease and contributes to levels of recommended physical activity.¹³

- 12 WHO (2018). One third of global air pollution deaths in Asia Pacific.
- 13 Also see https://www.institutefornaturalhealing.com/2018/03/surprising-health-benefits-stair-climbing/ for specific health benefits of stair climbing. Harvard Health Publishing (2014). Fast way to improve heart and muscle fitness.

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The top three ways of commuting by UNESCO employees at Headquarters are: metro/ RER (42%), walking (26%) and by bike or scooter (17%). In Field Offices, the most common ways of commuting are: personal car (54%), public transport (14%) and taxi (11%). At HQ, the number of staff who commuted to UNESCO by foot or by bike increased by approximately 26 % between March 2020 (prior to the first lockdown in France) and September 2020.

Source: <u>Staff survey in September 2020</u>



The Bangkok Sustainability Task Force has shared guidance to foster green commuting in the city of Bangkok. The green solutions put forward are:

- Local ride sharing by electric tuk tuk on the MuvMi app
- Buses on the <u>ViaBus app</u>
- E-boats in the city of Bangkok on the dedicated Facebook page
- Carpooling on the Liluna app

E-taxi with the following contact details:

- LineID: @evtaxivip Phone: +6620398888
- Email: <u>taxivip@evsociety.co.th</u>
- EV Society Facebook

¹¹ IPCC (2014). Climate Change 2014: Mitigation of Climate Change.

II. Greening our offices

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Full-time employees at UNESCO spend two-thirds of the year at work on average. Adapting your workplace, whether at Headquarters or in the Field network, will result in a smaller ecological footprint, as well as a healthier workplace.

SOLUTIONS

Adapt your working space

- Think twice before switching on air conditioning (AC) or heating systems: Instead, wear appropriate clothing, adjust the blinds and create passive air ventilation systems or cross breezes (to air out your office without mechanical systems). If it is absolutely necessary to use the AC, keep it to 22°C minimum. Similarly, when it is cold outside, do not put the heating system to more than 22°C.
- **Plant away!** Plants are great office mates. We recommend bamboo, azaleas, chrysanthemums, cacti, rubber and spider plants as they can absorb not only CO₂ but also contaminants leached from office appliances.¹⁴ Water your plants with leftover water or tea and invest in pots with water reservoirs to avoid constantly watering them. For hygiene/cleaning reasons, please make sure not to place the flower pots directly on the floor or window sill.

Move your desk closer to natural light to reduce the need to switch on the light.



CO₂ CO₂

Check your appliances

Switch off your lights when not in the office, even if you only leave for a few minutes.

Unplug at night or when you leave for extended periods. Do not leave your PC in "Sleep mode" but switch it off!

Think before you print! If you really have to print, check your settings to save ink and paper. Some key tips are:

- Print in back-and-white as much as possible.
- Print using the 2 pages per sheet option if appropriate.
- Reduce your margins.
- Reduce font size when feasible.
- Reduce line spacing if appropriate.
- Reduce DPI (dots per inch) to print with a lower resolution, e.g. from 1200 to 300 is fine for most office work.
- Use low ink fonts, e.g. "Century Gothic" uses less ink/toner than the industry-standard "Arial".

14 NASA 1989 Interior Landscape Plants for Indoor Air Pollution Abatemen

DID YOU KNOW?

- An average person working in an office produces 120 to 140 kg of waste each year, ³/₄ of which is paper waste.¹⁵
- Inside air is 2 to 5 times more polluted air in the United States.¹⁶
- It takes 10L of water to produce one A4-size sheet of paper.
- Heating, cooling, water heating, lighting and electronics (including computers) are generally considered as the "electricity hogs" of homes and offices (i.e. the things that consume the most electricity).
- Reducing heating by one degree (19 instead of 20°C, for example) saves about 7% in energy consumption.¹⁷
- Appliances continue to use energy when they are in "Standby" mode and/or simply by being plugged in, even if they are switched off.¹⁸ The energy wasted for all permanently plugged-in devices is estimated at 180 kWh/year¹⁹, or the equivalent of 140 hours of TV.²⁰

Our Regional Office for Southern Africa (ROSA) in Harare <u>has invested in solar panels</u>, replacing their polluting on-site electricity generator. The Office is now **completely running on self-generated green energy** and will even save money, with a return on investment period of only 36 months.

In Hanoi, UNESCO's Office is within the «**Green One UN House**» (GOUNH) facility, which recently won the Gold Lotus Rating. Not only is the office is a role model for sustainable green buildings in Viet Nam, but it also <u>leads the way as a climate neutral UN building</u>: it achieves significant energy reduction through solar panels, solar water heating, smart environmental controls and recycling its own wastewater for the city.



The multifunctional photocopiers at Headquarters have a series of settings that reduce the negative impact on the environment. The results speak for themselves: the system has spared the equivalent of 2100 m3 of water, 40 MWh of energy, 171 trees and 17 tonnes of CO2 for the year 2019 only!

You can keep track of your own paper consumption and savings in the WATCHDOC app, which you can find as "My Print" in DUO /top apps on the intranet.

15 ADEME (2020) Éco-responsable au bureau.

- 18 Betoldi et al. (2007) Standby Power Use: How Big is the Problem? What Policies and Technical Solutions Can Address It?
- 19 Ecoconso (2018). 10 choses à faire pour économiser l'énergie chez soi.
- 20 WarrenRECC. What uses Watts in your home.

⁶ Environmental Protection Agency, Indoor Air Quality.

¹⁷ ADEME, Comment mieux se chauffer ?

III. Greening our coffee and lunch breaks

The way we eat and drink has a direct impact not only on our health but also on the planet. Be it mass deforestations to expand agricultural production or the disposal of single-use plastic that ends-up polluting the seas, the human impact on our ecosystems is enormous. Food consumption accounts for an estimated 26% of all anthropogenic GHG emissions.²¹

SOLUTIONS

As both food consumers and providers (particularly for event catering), we as UNESCO staff can make a difference!

Check WHAT you eat

- Reducing meat consumption and favouring other sources of protein will always have a lower carbon footprint than choosing meat, even if the latter is produced sustainably and/or locally (see figure on the right). Whenever you organize a meeting or an event, always include a vegetarian and/or vegan choice.
- **Buy seasonal fruits and vegetables:** <u>here</u> is a way to find what to buy and when wherever you live. You can find a calendar for Western and Northern seasonal vegetables around the world <u>here</u>, and specifically for France <u>here</u> – along with some ideas for recipes for each season <u>here</u>.
- **Reduce consumption of sugars** (confectioners' sugar, soda, white flour, etc.). Sugar production results in high levels of pollution, in addition to cardiovascular diseases and other health problems.





Amount of GHG released for each food type based on the amount of protein it provides. The smaller the ratio of the food type, the better it is for the environment.

Check HOW you eat (and drink)

- Bring your lunch to the office or sit down at the restaurant or canteen. Avoid takeaway to reduce packaging waste. If you want to order food for take-away, consider checking whether stores or restaurants in your surroundings have daily unsold items. Lists of apps that work internationally can be found on this page or this page.
- When ordering beverages, don't buy plastic bottles! Use a reusable bottle for water and your own mug for coffee or tea and favour glass over plastic.
- **Keep tableware handy:** keep ceramic dishes, metal cutlery, mugs, and glasses around for office gatherings to avoid having to use plastic cups and plates.
- Take your leftovers home or share them with your colleagues, as food waste is particularly harmful for the environment.

²¹ Poore, J. & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers

²² Data based on Poore, J. & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers.

DID YOU KNOW?

- Throwing out food is one of the biggest contributors to climate change. Not only do we waste calories but we also waste the many resources needed to produce food (e.g. dedicated water and land that could have been used differently). In total, 25-30% of global greenhouse gases come from the food system alone.²³
- One would have to avoid food packaging for approximately 11 years to achieve the same environmental benefit as one year without meat.²⁴
- Although many of the environmental impacts of sugar cultivation (cane and beet) are common to all agriculture, some impacts are particularly severe when it comes to irrigation of sugar cane and pollution runoff.²⁵

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In France, to avoid food waste there are two easy-to-use apps that map unsold items at a reduced price: : <u>Too Good To</u> <u>Go</u> and <u>Phenix</u>.



Several UNESCO Field Offices – Beirut, Hanoi, Harare, New Delhi and Santiago – have already adopted a strict policy against the use of single-use plastic for catering. At Bangkok Office, food waste is collected separately and disposed of in compost bins that are later used for urban gardening.



23 IPCC (2019) Food security.

- 24 Hoolohan et al. (2013) Mitigating the greenhouse gas emissions embodied in food through realistic consumer choices.
- 25 WWF. Sugar and the environment.

IV. Greening our waste

Poor waste management and low rates of recycling have a direct negative impact on GHG emissions, public health and pollution, particularly of the oceans, waterways, wild spaces, agricultural development and biodiversity.

SOLUTIONS

- **Produce less waste: buy less products or food that contain packaging** and single-use plastic. Bring your own containers, cutlery and bags with you. Take your own coffee mug for coffee breaks and try replacing tea bags with loose-leaf tea.
- Make sure you are aware of the waste sorting rules of your office, which may vary depending on local recycling/waste management services.
- Sensitize your colleagues during your coffee and lunch breaks about the challenges related to solid waste disposal. <u>UNESCO's #TrashHack campaign</u> provides some fun facts and examples on how to do so.
- Take care of office supplies to prolong their lifespan. Before buying new items, check if recycled material can be used or ask your colleagues to lend you their working tools. Similarly, agree to share materials you use rarely with your colleagues (e.g. pencil sharpeners, staplers, punches, scissors).
- Join annual <u>World Cleanup Day</u> in mid-September each year: it is a great way to promote cleaner streets and fight pollution with your friends and colleagues.

At Headquarters, individual bins were abolished in 2020 to make way for central waste collection points for paper, plastic and residual waste on every floor. Other types of waste such as glass, cans/metal, cardboard, aluminium coffee and capsules are collected in the basement (delivery area). Further information can be found on the intranet.

In 2019, on average every UNESCO employee in duty stations around the world produced 200 kg of waste while in the office. 51% of that waste was recycled while 43% was landfilled. <u>Click here for more</u> information

DID YOU KNOW?

- Every year, an estimated 11.2 billion tonnes of solid waste is collected worldwide.²⁶
- Integrated waste management, including recycling and waste avoidance, can substantially reduce greenhouse gas emissions by up to 15 to 20%.²⁷
- Where waste cannot be avoided, recycling leads to substantial resource savings. For each tonne of paper recycled (200.000 A4 sheets) approximately 17 trees, 1440 litres of oil, three cubic yards of landfill space, 4000 kilowatts of energy and 26500 litres of water are saved.²⁸
- For every kg of plastic recycled, around 1.5-2 kg CO₂ equivalent is saved compared to the use of virgin plastic of the same kind followed by incineration.²⁹



The <u>UNESCO office in Lima</u> is part of the recycling programme <u>"HP Planet Partners Peru"</u> through which they return empty Original HP toner and ink cartridges for environmentally friendly disposal.

Lima Office also has an agreement with a company that breaks down some electronic devices to make them reusable and reduce hazardous waste in the process.

Other examples abound: <u>Bangkok Office</u> invested in a waste separation system on its premises (including for food waste) and a plastic recycling machine, while the Office in <u>Nairobi</u> has trained its staff on common waste separation, and initiated a contract with a certified company to weigh and recycle each component.

²⁶ UNEP, Solid waste management.

²⁷ UNEP (2015), Global Waste Management Outlook.

²⁸ University of Southern Indiana, Paper recycling facts.

²⁹ WRAP (2006) in UNEP (2010). Waste and Climate Change. Global Trends and Strategy Framework.

V. Greening our digital footprint

As the world becomes increasingly digitalized, data centres and data transmission networks are emerging as an important source of energy demand, accounting for about 2% of global electricity demand.³⁰

Sending emails, storing files in the cloud or surfing on the web require data centres and data transmission networks to store and transfer data from one point to another. This requires high levels of electricity to run and to keep cool.

SOLUTIONS

Individually, we can all ensure we're not taking up more storage on data centres than we need by carrying out regular digital clean-ups. You can do a Digital Cleanup anytime anywhere as soon as you have a computer or smartphone with you. Here are some steps to guide you through the process:

- **Clean-up your computer files stored online**: delete files that are duplicates, archive the important files and delete unneeded ones. Sort your photos and videos and delete duplicates and ones not needed.
- **Clean-up your mailbox**: filter your emails; a good way to do this is by sorting them out starting with the oldest ones and by archiving them if need be. Unsubscribe from newsletters you do not read. Select long conversations, pick the newest one and delete everything else. Clean your junk mail and trash.
- **Resize your email attachments**: the lighter the emails you send, the better. On Outlook, it has become very easy to resize pictures either by reducing the picture dimension or by compressing the picture resolution. For any large PDF you want to send you can reduce its weight by compressing it in few clicks. If you are about to send one or a few heavy files together, we recommend you to 'zip' the files together and share them via a filesharing tool such as UNESCO Filedepot (available in DUO). For internal use, send a link to the document's location on Teams/Sharepoint rather than sending an attachment.
- Reduce your mail traffic: avoid hitting the "Reply all" button in particular for 'thank you' messages unless absolutely necessary. For short exchanges with colleagues, make use of the chat function in Teams! You can even create groups here and exchange with several colleagues at the same time.
- **Clean-up your smartphone**: remove all applications that you haven't used for a while or used only a few times. They consume energy even when they are not in use. Sort your photos and delete any duplicates and blurry ones.



Keep it clean: Think how to avoid sending emails and attachments by sharing files and comments on Sharepoint/Teams. Save the files in one specific place in the cloud so there is no need to keep the same file on several computers. Keep mailing lists clean and update them regularly.



Having a better use of online tools will save useless emails and spare some space on your computer. KMI provides webinars related to OneDrive for Business and Teams, Have a look at which one interests you the most by clicking <u>here</u>.

DID YOU KNOW?

- Cleaning up your computer and mobile storage can also help with longevity of your technology's lifespan, meaning less e-waste.
- The use of digital technologies now actually generates more CO₂ emissions and has a bigger impact on global warming than the aviation industry!³¹ For example, a 20 MB attachment generates 20 g of CO₂³²
- Greenhouse gas emissions caused by digital end devices and infrastructures represents 1.8 to 3.2% of global emissions as of 2020.³³

³⁰ IEA, Data centers and networks.

³¹ RESET (August 2019). Our Digital Carbon Footprint: What's the Environmental Impact of the Online World.

³² Allianz. Les bonnes pratiques pour minimiser vos impacts numériques.

³³ idem



Be it for conferences, exhibitions or screenings, UNESCO hosts and organizes many events around the world. This has a huge environmental impact, caused mainly by the travel of staff and participants, but also by the use of hotels, the waste it generates and electricity and energy it needs. When you organize an event for UNESCO, make sure to include environmental considerations in your planning and management.

SOLUTIONS

The first question you should ask yourself is: **is it really necessary to organize a physical meeting, or could it be held virtually?** If it must be physical, consider turning it into a hybrid meeting, which will avoid emissions from travel and accommodation for some participants, and can even enlarge its outreach. UNESCO already provides the necessary tools (Microsoft Teams, Skype for Business, Zoom and YouTube, as well as Facebook Live).

Food and drinks

- The type of food you order makes a big difference on the event's footprint. Given the high carbon footprint of meat, consider providing vegetarian or even vegan food only. If this is not possible, make sure to at least offer one **vegetarian and/or vegan option** at every meal. Additionally, make sure that the vegetables ordered are all in-season.
- Also pay attention to quantities to avoid food waste. In case you ordered too much, ensure that food leftovers do not go to waste but use them for a different purpose, let colleagues/participants take it home or donate the food if sanitary and legal regulations allow for it (the part about greening your coffee and lunch breaks further elaborates this p.10).
- Promote the use of reusable bottles and mugs before and during the event. As an organizer, ask the catering service to provide water jars and glasses on round tables. Water dispensers should be available to avoid the purchase of plastic bottles. Inform participants in advance that no bottled water will be provided and invite them to bring their own reusable bottle or cup. This is also a great way to communicate on the sustainability component of the event!



Documentation and communication

- Avoid printing conference folders and meeting reports! The agenda and all working documents and presentations can be sent to participants by e-mail, shared via OneDrive and/or made available in a conference app (Guidebook and Event Farm are two great conference apps with a fair pricing per user). This way, you will also make sure that everyone always has the latest version. Same for relevant UNESCO publications a link to UNESDOC will make the luggage of participants a lot lighter. If some participants really require a print version of the working documents, only print on demand.
- When designing banners and kakemonos for events, do not include the specific date or name of the event. If you restrict yourself to the slogan or logo of the related programme, you will be able to use them again. If the rooms have large screens, you can even completely refrain from producing new material, and project the event visuals on the screens instead.
- **Reduce the disposal of give-aways** from organizers and sponsors. Ask participants to bring their own notepad and pen before the event takes places. If you would like to give participants a specific conference souvenir, you could organize a photo booth (photos sent digitally) and/or have a frame with the conference hashtag that participants can hold to take photos.

Make your event comfortable and visually appealing

- When using screens and other presentation material, think about reducing the screen brightness as well as turning on screen-savers. Also, switch your screens off or turn into sleep mode while not in use.
- Try to make the most use of natural sunlight during events or meetings to avoid switching artificial lights on.
- **Don't exaggerate on air-conditioning or heating!** The difference between outside and inside temperatures should not be more than 5 to 7 degrees. AC should never be below 22°C, and heating not above that threshold either.
- When adding floral decoration, favour plants in pots over cut flowers. This way, they can be kept in offices for the staff of UNESCO weeks or even months after the event took place.
- When providing a list of suggested hotels or if you conclude a contract with a hotel yourself, choose eco-labelled hotels at walking distance from the event venue (check out <u>Green Key certified hotels</u>). Consider booking shared rooms for the participants, if the situation allows for it.

DID YOU KNOW?

- According to IACC's 2019 report, sustainable practices will be one of the most important areas of focus for venues by 2024.³⁴
- Scope 1 and 2 GHG emissions (see carbon footprint definition <u>p.5</u>) for hotels are typically between 5 and 15 tonnes of CO₂ per bedroom per year, depending on the location and function of the hotel. As a general rule, the more high-standard a hotel is (i.e. number of stars), the higher its ecological footprint.³⁵
- Air conditioners and electric fans account for about a fifth of the total electricity in buildings around the world or 10% of all global electricity consumption.³⁶



- 34 JAAC (2019) JACC Meeting Room of the Future 2019 Report.
- 35 Ecometrica GHG Fact Sheet: Hotels.
- 36 IEA (May 2018) The future of cooling

Missions often imply long-run travel, which generates a high environmental footprint. Air travel – both of staff and conference participants - represents the largest source of UNESCO's greenhouse gas emissions, so this is where we can make the biggest change.

SOLUTIONS

Avoid the plane as much as possible

Take advantage of virtual tools

The best way to reduce emissions from travel is to avoid travelling! The COVID-19 pandemic has shown us that **we can also efficiently do most of our work without travelling**. UNESCO provides an elaborate digital infrastructure with business subscriptions to Microsoft Teams, Zoom and Skype which can take you almost everywhere in just a few clicks. So before planning your mission, think twice whether it could be replaced by a virtual meeting.

Take the train or bus

If you take the train or bus, you will save a significant amount of CO_2 emissions compared to the same travel by plane. CO_2 savings are even bigger when the plane is travelling short distances (e.g. domestic flights). To know more about short distance travels, check out the part about commuting <u>p.6</u>.

At UNESCO, for trips under 4 hours it is already mandatory to take the train instead of the plane, at least within Europe and where possible. But while we accept to spend 16 hours on the plane to travel from Santiago to Paris, colleagues are often reluctant to undertake a 9-hour train trip from Paris to Madrid, although this would be much more climate-friendly and can even be more relaxing than spending hours queuing at the airport. For some connections, night trains can also be an option. Why not give it a try next time!



Green your flight

If you fly, strictly fly economy

When booking a plane, **your seat choice can save both money and emissions**. A business class chair takes up a lot more space than an economy class chair which leads to a relatively more polluting travel. Unlike most other UN Agencies, UNESCO already has a strict economy class policy for all trips under 9 hours (with exceptions only for the Director-General and her Deputy). Above 9 hours, the class immediately above economy (e.g. premium economy or business) is allowed, but not mandatory. Think twice whether you really need it: economy is still the more climate-friendly choice.

Pack light (and go paperless)

The heavier your luggage, the more fuel is needed for travelling. When you travel light, not only will you feel less hindered by the weight of your luggage but you will also contribute to cleaner air. For the vast majority of cases, printed documents for missions are trivial today, a USB key can reduce several kilos of paper to just 30g.

Take your own bottle

Hydration is very important, particularly for longer missions. Rather than using single-use plastic cups on the airplane or train, or purchasing water bottles at the airport, **bring your own reusable bottle or fill the one you bought as many times as possible**.



Once you have arrived

Prioritize local transport

Whether your flight is about to leave or whether it has just landed, try to **prioritize public transport over taxis** if this is possible and safe according to UNDSS. It might make you explore the city's infrastructure and landscapes and even give an insight into local culture!

Book eco-friendly hotels

One of the ways to minimise your impact is by **staying in eco-friendly hotels**. Many hotels and hostels reuse products and raw materials in their day-to-day activities and have a clear waste-minimization policy. They generate their own green energy, grow their own fruit and vegetables, and compost food waste. Some hotels also specifically invest in their local community.

DID YOU KNOW?

• Going on a round-trip from New York to London? On average, you'd need to skip 2570 hours of train or 450 hours of bus or 215 hours of car to compensate for the emissions of that round-trip.³⁷

Modes of transport and associated carbon footprint³⁸



- Only 11% of the world's population took a flight in 2018 and 4% flew abroad. "Super emitters" who represent just 1% of the world's population caused half of aviation's CO₂ emissions.³⁹
- In the epicentres of COVID-19, mobility was reduced by around 90% while around half of the world population was under some form of lockdown. These measures might have reduced global environmental pollution temporarily by up to 30%!⁴⁰

38 Idem

39 Gössling and Humpe (2020) The global scale, distribution and growth of aviation: Implications for climate change.

40 Muhammed, Long & Salman (2020).



³⁷ Aurélien Bigo (2019) « Comment décarboner les transports d'ici 2050 ? ». data from ADEME. ENTD. CGDD. Arafer and Omnil



The ecological footprint of the products or services contracted by UNESCO can vary greatly. Procurement accounts for 58%, or USD 118 million of the total USD 203 million, of all contracts concluded.⁴¹ This big volume shows that there is a large potential here to make a difference for the environment when integrating sustainability criteria into our procurement practices.

SOLUTIONS

- Make use of the <u>UN Procurement Practitioner's Handbook</u>, whose chapter 14 is dedicated to Sustainable Procurement and provides guidance in four steps.
- **Educate yourself: Follow the** <u>training on Sustainable Procurement</u> offered for free by the UN Global Marketplace.
- **Include environmental criteria** in your tender requirements and in your evaluation grid (see also further below) and use the <u>checklist for sustainable procurement</u> provided by the UN Global Marketplace.
- Look for local providers: favour the local sustainable vendor over the one further away, as part of your best-value-for-money approach.
- **To evaluate the environmental performance of the tenderer,** you can ask/check if the vendor is reporting publicly on its GHG emissions or any other environmental sustainability criteria. A very good website that helps you track this information for almost any corporation in the world is the <u>Carbon Disclosure Project website</u>.
- **Rely on official labels or standards** meant to increase the transparency of vendors' and their products' environmental sustainability. Two of the most widespread certifications for the sustainability embeddedness of an organization are <u>ISO 14001</u> and, in Europe, <u>EMAS</u>, which means that they have a functioning Environmental Management System and are continuously seeking to improve their environmental performance.

Do the investigation yourself, although, without the proper tools at hand this could be very time-consuming. Below you will find some ideas of features to check, for example on the tenderer's website:

Climate change mitigation and adaptation:

- What technology does it use? Is it low-carbon or energy-efficient technologies?
- Does it offset (part of) its carbon emissions? Is it carbon neutral?
- Does it use energy-efficient and clean transportation methods in its logistics arrangements?

Pollution prevention:

- How does it use, store, and dispose of environmentally hazardous materials and chemicals?
- How does it manage solid waste disposal, and recycling?
- Does it consider sustainable wastewater management and prevention of effluents reaching water bodies (including ground water)?

Resource use:

- Does it say anything about the usage of recycled, recyclable, biodegradable, re-used, reusable, renewable or compostable materials when mentioning its production process?
- Does it propose a take-back programme/end-of-life management system?
- Does it propose reduced or bulk packaging for its product?

Biodiversity and natural habitats:

• Does it promote legal and sustainable agriculture, fishing or forestry?



⁴¹ UNESCO Internal Oversight Service (2020), Audit Report of Procurement, (forthcoming)

DID YOU KNOW?

- UNEP estimated in 2013 that 56 countries already have adopted green or sustainable public procurement programmes at national level.⁴²
- There is an explicit reference to sustainable procurement in the Sustainable Development Goals (12.7): "Promote public procurement practices that are sustainable, in accordance with national policies and priorities".⁴³

The UNESCO Procurement unit is advising to include sustainability criteria in **all bigger tenders worldwide**, such as making sure that the selected provider is ISO 14001 certified. This was, for example, the case in the recent procurement of **Travel Management services in Zimbabwe**, or for the **procurement of editing/printing services in Cameroon.** Recent examples of the inclusion of environmental criteria in procurement exercises at Headquarters include the **tender for cleaning** services (9 defining criteria on environmental aspects both regarding the cleaning products and the bidding company itself), **catering services** (e.g. request for plastic reduction policy; provision of vegetarian meals; fish only from sustainable sources), and **supply of country flags** (request for <u>Oeko-Tex certification</u>).

Field

Several Field Offices, such as New Delhi Office, have already committed to only procuring eco-friendly, re-cycled paper for general printing. At Headquarters, this is mandatory as well.

If your Office needs to order new printing paper, an easy way to procure environmentalfriendly paper is to buy the 100% post-consume unbleached Forest Stewardship Council (FSC) certified recycled paper and envelopes.



⁴² OECD. "The role of public procurement for low-carbon Innovation".

⁴³ UNEP (2013). Sustainable Public Procurement: A Global Review. United Nations Environment Programme.

Since 2020, telecommuting has become a regular practice at UNESCO. Working from home can have a positive impact on carbon emissions as it avoids the commute to the office and, if practiced at large, also on the energy and water consumption of UNESCO. However, telecommuting is only climate-friendly if, at the same time, we pay attention to adopting a green lifestyle at home as well – below are a few tips how this can be done!

SOLUTIONS

First, try to be more conscious about how you handle waste, by following the "5 Rs" - as 5 consecutive and complementary steps.⁴⁴ The part about greening our waste <u>p.12</u> elaborates this.

- **Refuse** what you do not need: bulk-buy instead or buy unwrapped fresh produce from local marketplaces while bringing your own bag. There are plenty of websites that provide recipes for easy, quick and cheap waste-free products. Two examples are <u>Trash Is for Tossers</u> and <u>DIY Natural</u>
- **Reduce** what you no longer need. Without even realising it, your home might be full of objects you do not really use or need. The best solution would be to sell or donate old objects, from clothing, to home furniture, to appliances, to cell phones.
- **Reuse (or repair)** what you already have but cannot reduce. Upcycling can hone your creative skills: <u>make flowerpots out of your empty bottles</u>, use <u>coffee grounds as natural fertilizer for your plants</u> or cook with leftover food (<u>click here</u> for a list of 60 recipes). You can easily repair old clothes, gadgets and tools instead of replacing them. In France, you can sell your own and buy reconditioned technology through <u>BackMarket</u>.
- **Recycle** when none of the above is possible. A lot of municipalities have an organized recycling system, at the very least allowing you to separate glass, paper and plastic and residual waste. Whatever is recycled, is a plus.
- **Rot what remains.** For all organic waste (food scraps), composting can be the solution, waste being used as a resource. This can be done individually on your balcony or garden, or collectively.

Second, try reducing your water consumption:

Use the half flush in the toilet when available.

Gather water from the washing of your fruits and vegetables, and keep it to water your plants.

Replace baths with brief showers.

Explain to your children why it is important to save water.

Points for recycling, reselling or donating in Paris and France include:

HQ

Le relais
Emmaus
Envie

If you want to (learn how to) repair your bicycle, check out <u>this map</u> for Europe and <u>this</u> <u>map</u> for Ile-de-France.

If you want to participate in a composting initiative in Paris, <u>here</u> is a map of all places where you can do so.





⁴⁴ Johnson, Bea (2013) Zero Waste Home. Scribner: NYC

Here are other things that you can do while working (or not) at home:

Do a digital cleanup of your PC, tablet, smartphone or any other device at home (part V)

- **Reduce your electricity** consumption: Switch your PC off overnight. Unplug devices that are not in use instead of leaving them in standby and switch lights off when you leave a room. Replace old light bulbs with LED. Use a power strip with switches to flip it off when items plugged in are not in use.
- Wear warm clothes instead of systematically using heating and when you do use it, close the doors/windows when it is on. And if you can, invest in good thermal isolation windows in your household.



45 Eurostat (2020) Waste generation 2018.

- 48 Ecoconso (2017), 9 conseils pour économiser l'eau à la maison.
- 49 idem
- 50 Energy Saving Trust, Working to address the climate emergency.
- 51 Agence France Électricité. Consommation énergétique
- 52 idem

DID YOU KNOW?

Waste at home:

- 2018, 38.7% of waste in the EU-27 was landfilled and 38.1% recycled.⁴⁵ Remember that landfill takes up land space and may cause air, water and soil pollution, while waste incineration may result in emissions of air pollutants.
- Most food waste does not occur before or during the food production process. In the UK, 70% of the food that got thrown away in 2020 was intended to be consumed by households. This figure amounts on average to over GBP 700 worth of food that could have been eaten per family, every year.⁴⁶

Water at home:

- About 4 billion people (or two-thirds of the world population) experience severe water scarcity during at least one month of the year. ⁴⁷
- A full toilet flush can use up to 15 litres of water for every flush, whereas half flush uses less than 6 litres toilets represent 30% of our water consumption.48
- Letting the water flow while washing dishes consumes up to 200 litres per load of dishes.⁴⁹

Energy at home:

- Up to 8% of the total electricity used in our homes comes from appliances left on standby.⁵⁰
- In France, according to ADEME, 47% of the energy produced is consumed by households for domestic purposes.⁵¹
- Avoiding placing hot food in the fridge saves energy as hot food takes longer to cool down and raises the temperature inside your fridge.⁵²

⁴⁶ WRAP (2020) Food surplus and waste in the UK -key facts.

⁴⁷ UN Water. Water Scarcity.



Most importantly: Educate yourself, and help others educate themselves

Learning never stops. By learning more about the complexity of a sustainable world and sharing your knowledge, you will realise how simple some solutions are. This guide can be the beginning for adopting a sustainable lifestyle by tackling your preferred topic, but most importantly we want to encourage you to spread the word!

Reduce food waste

"Roughly a third of the world's food is never eaten, which means land and resources used and greenhouse gases emitted in producing it were unnecessary. (...) The food we waste is responsible for roughly 8 percent of anthropogenic global emissions."⁵³ A proper management of the food we buy to ensure everything is consumed, is the easiest way to contribute to reducing CO₂ emissions.

Engage in a plant-rich diet

"If cattle were their own nation, they would be the world's third-largest emitter of greenhouse gases". Choosing plant-rich diets over meat-based diets reduces emissions significantly and tend to be healthier, leading to lower rates of chronic diseases.⁵⁴

Change your transportation habits

"Worldwide ambient air pollution contributes to 7.6% of all deaths in 2016."⁵⁵ Fly a lot less, look for alternatives. Avoid pollution by walking or biking instead of driving whenever possible.

53 FAO, Food Wastage Footprint and Climate Change.

- 54 Drawdown, Plant-rich diets.
- 55 WHO. Air pollution.
- 56 https://zerowastehome.com/tips/
- 57 Data based on Wynes and Nicholas (2017) The climate mitigation gap: education and government recommendations miss the most effective individual actions.

Adopt the 5Rs: Refuse, Reduce, Reuse, Recycle, Rot

Contrary to popular beliefs, recycling in itself is not the optimal solution: it is costly, complicated and not efficient. "Refuse what you do not need, reduce what you do need, reuse what you consume, recycle what you cannot refuse, reduce or reuse, and rot (compost) the rest."⁵⁶ This also entails a mindset of reducing our electricity and water consumption, as well as finding composting solutions, which can already make a huge difference!

CO₂ prevention at a glance⁵⁷

