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Think Critical4Climate

# TRAINING SCHEMES FOR EDUCATORS

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# Conteúdo



## Keys

| | | |
|---|---|---|
| Duration | contribute to step or activity | websites or blogs |
| participants | additional information or context | books or other documents |
| age | associated with materials | Videos |
| group | | Audio |
| | | Images |

In case participants are not used to discussions, the educator can add more introductory activities to build discussion skills.

## How to use this toolkit

In this toolkit, educators can find an **Introduction** with several ice-breakers and suggestions on how to set up a safe space for the activities proposed. Ensuing this introduction, the Toolkit presents a summary of the four **Methods** used to develop the eight proposed activities, followed by an Overview of Competences and Subjects of the activities, allowing educators to select those of their preference based on those two dimensions. The **Activities** are presented after this.

Each Activity is broken into an Introductory Page, a Step by step guide, and annexes.

The Introductory Pale is opened with the title, followed by the theme of the activity, the duration, marked with the icon, the minimum and maximum of participants marked with the icon, the age group of the target participants marked with and, whenever it is relevant, the icon will inform the size of the groups into which the participants are recommended to be broken into.

The Step-by-step guides the educator in every component of the session. If the results of a different activity can contribute to a particular step or to another activity, a side note with the icon will warn the reader. Other times, additional information or context to a step can be presented in side notes, marked with , and if these are associated with materials that can be used in the activity, they will be marked with .

The annexes contain materials that support the activities, and educators are encouraged to print them whenever they want to implement an activity in the classroom, or to devise their own resources based on those provided.

Across the toolkit, a series of external digital resources are proposed. Some of these will be websites or blogs, marked with the icon, while others will be online books or other documents, signaled with the icon. Videos, audio and images will also be proposed in some links, respectively marked with the , and icons.

# Introduction

These training schemes for educators present four methods/approaches (**Philosophy for communities**, **Visual literacy**, **Through others´ eyes** and **Causes and consequences**) that can be used to work with the topics of climate change and media literacy in a formal as well as informal education. It contains a description of each methodologies/approach and how to use it, some useful hints and resources.

Lessons included in this training scheme were created as the first result of the **DEXPO – think critical for Climate** project and will be followed by more detailed materials within a Toolkit and online Platform.

The activities/lessons are not intended as an introduction to the topic of climate change but require a basic to intermediate level of knowledge regarding climate change and related issues. To review the basic facts about climate change, there are many online courses and other materials available. The **Glossary** of terms and list of resources are added at the end of this **Introduction**.

## Suggestions

Presented lessons are only suggestions on how to use them. Depending on each educator´s needs and needs of participants, activities can be adjusted, skipped, rearranged etc. However, any activity, especially when not used as a whole lesson, should be followed by reflection on how activities impacted participants´ emotions, values, etc.

As all activities cover the topic of climate change, we strongly recommend being ready for possible expressions of climate grief. There are many resources that can help with that, e.g.

- **https://www.climateandmind.org/what-is-climate-grief**
- **https://www.psycom.net/anxiety/coping-climate-grief-anxiety**
- **https://www.bu.edu/articles/2019/climate-grief/**
- **https://climategriefgroup.org/**

For more resources, please refer to the list of resources at the end of this **Introduction**. Also, the exercise **Role play "Become volunteer"** included in the **Activity 8** can be used to tackle climate grief related emotions. In general, any lesson should be concluded with some concrete proactive ideas, so participants will not leave feeling powerless but with some local actions in their mind.

### ERR framework system for learning and teaching

If we want students to manage information in a quality manner, it is necessary to provide them with a number of skills that will enable them to effectively classify the information and create a meaningful collection of ideas that will ensure practical action. They have to become people who think and learn critically. They must go through the systematic process of critical analysis and reflection, a process that offers them information while they are attending

school and serves as a framework system for later critical thinking and reflection (Steele, Meredith, Temple, 2006:7). Teachers must prepare an effective framework system for thinking and learning that is also clear and systematic. ERR framework system is a process that includes evocation (**E**), realisation of meaning (**Rz**) and reflection (**R**) It is the conceptual basis for teaching that is systematically implemented in teaching of all grades and subjects. The system is a way of thinking and teaching that enhances students' critical analysis, giving meaning and critical reflection (Ibid, 2006:7). When students apply the framework system on their own thinking and self-learning process, they are able to determine the context of their knowledge by adding information to the one they already possess. Information can be actively involved in new experiences or be reflected on the new experiences or they can think about changes of their knowledge.

**ERR framework system** of teaching consists of three phases and it is a good model of the best way people learn. The model describes the process of thinking in which students are included before the process of learning, during the process and after the learning process.

The first phase of ERR framework system is **evocation** (E). At this stage students are encouraged to use their knowledge and experience on a particular subject and to anticipate and determine the purpose of teaching and learning. This phase connects the previously acquired knowledge with knowledge that is being acquired. This enables the transfer of knowledge.

The second phase is the phase of **realisation of meaning** (Rz) which gets the students through a new text analysis, thematic presentations or other form of presentation and new contents. Students are expected to experience new content and integrate it into their own knowledge. At this stage information is acquired.

In the phase *of* **reflection** (R) students think about what they have learned in the context of their existing knowledge, rearrange the existing knowledge, build and create a link between the existing and new knowledge and create a new quality.

- Source: **ERR FRAMEWORK SYSTEM AND COOPERATIVE LEARNING** *Fehim Terzić, MSc* Pedagogical Institute of Zenica-Doboj Canton (Bosnia and Herzegovina) **https://hrcak.srce.hr/file/117120**

## How to start

For each activity/lesson included in this training scheme, it is important to first set a safe, comfortable and respectful environment. Below are some suggestions on how to achieve it.

### Setting the Space

The room:

All participants should sit in a circle. The room should be large enough to allow arranging chairs in a circle so that all participants can see each other and achieve eye contact with whoever is speaking. Everyone should also be able to

hear each other clearly; therefore, the acoustics of the environment need to be considered as well.

To create a pleasant atmosphere, there could be music playing in the background and/or a lovely refreshment station is in a corner (it can contain tea, water, fruit and cookies).

A computer station with a printer is accessible for all groups (in case it is necessary). A **Miro** Board or flipchart is available to post the information, created pictures, filled worksheets, etc.

The group:

The educator should be a part of the group and all participants should be viewed as equally important to the success of the 'community'.

We strongly suggest using approaches described in **Activity 1** and/or non-violent communication.

Also, at the very beginning of each lesson/activity, all participants should participate in creating a list of agreed guidelines on how their community will work together. This list can be written down and posted somewhere in the room where everyone can see it clearly. To show/confirm that each participant agrees with chosen guidelines, they can add their signatures. This will enable a respectful, caring, and collaborative environment.

Guidelines may include:

- Listen to the speaker
- Think about and respond to what is being said
- Give reasons (I disagree or agree with X because...)
- Treat everyone's contribution with respect
- Comment on the point, not the person
- Contribute so that you support the community

## Ice breakers

Icebreaker activities are great to introduce participants (in case they do not know each other), introduce the topic of climate change, activate and motivate participants, etc. There are many sources where to find icebreakers for kids, such as:

- **https://www.scienceofpeople.com/icebreakers-for-kids/**
- **https://kidactivities.net/icebreaker-games-for-kids/#list**

There are also following activities that were created for the DEXPO project.

Create a slogan! ⓘ

Each participant creates a slogan that relates to their best qualities. The activity educator ensures everyone participates and shares with at least three other participants.

If the participants already know each other and the educator, the activity can instead be oriented to create a slogan for a climate-related topic (wildfires, rising sea levels, carbon emissions, etc.). These can either focus on a company or entity responsible for such problems, or on a group or movement acting to

ⓘ This activity can be used as supplement for the **Role Play** exercise in **Activity 8**.

prevent or mitigate them.

Examples: Create a slogan for…

1. … a national chapter of the World Wildlife Fund.
2. … September 22, Car-Free Days.
3. … June 5, World Environment Day.
4. … a recent Greenpeace campaign.

🕐 10 minutes

### Visual collage

Goal: the groups create a visual collage regarding climate change, creatively using images. The goal is to see, listen, think and create. There is no right or wrong. It is about everybody.

First activity:

- Each participant choses a picture and thinks of three words that they associate with the picture.
- Participants present it to at least three participants using those words.
- Then each participant creates a subtitle with those words.
- Each participant put their picture with the subtitle on the wall, using painter's tape.

Second activity:

- Everybody is invited to see the pictures and read the subtitles.
- They may elect representatives that can change the pictures and try to group them by meaning, following the larger group's indications.

🕐 10 minutes

### Sharing photos on the go

Each participant must choose a picture from their mobile phone. Everybody gets up and starts walking. Everybody participates and interacts with everyone's photos. Fast-paced icebreaker with music.

- Participants share their mobile phone with another to briefly discuss their choices.
- Pairs of participants rotate every two minutes.

🕐 10 minutes

### Blackout poems ➲

The purpose of blackout poetry is to draw a new meaning from something initially made by another mind. Many blackout poets use words to string together a new story from the initial one.

Each participant chooses only one page from an article for the exercise. With a black marker, the participants cover all the words in the page, except those they wish to preserve to create a new meaning.

Each participant signs and dates the poem and glues it to a white card (as a small artwork).

➲ See examples of blackout poetry in **Activity 5**, that expands this exercise, and a further developed explanation in **Used Methods**.

(optional) Each participant can also decorate and draw upon the article.

🕐 15 minutes

## Used methods

The activities/lessons included in this Training scheme are based on following methods.

### Dyad

The activity aims to create a safe and empathic environment using conscious pair work. During this activity, participants tune into themselves, but also listen empathically to their partner. The activity helps to build mutual trust, a safe environment and also allows for the establishment of a relationship between the two participants.

The educator invites participants to create pairs; either based on their own preferences, or they can create pairs  using sorting cards, calculations, etc. Each pair finds a place in the room where they will not be disturbed by anyone. The educator sets a question for the pairs to work on. Each pair decides who will speak first on the chosen topic. Then the “sound signal” starts a time (2 minutes) for the first speaker to say what they want to say about the topic. No one interferes in this monologue in any way, not even for clarification, they just listen to the speaker's flow of thoughts. After the time for the first person's monologue is ended by a sound signal, the task of the second person of the pair is to repeat in their own words the most important information that the first person talked about. Then the dyad roles are reversed and the person who listened in the first round will speak in the second round.

- Source: Nesehnutí, **https://www.withyou-th.org/handbook/cs/method/metody-nenasilne-komunikace-ukazka/**

### Brainstorming

Brainstorming is a communicative cooperative method that should generate as many ideas as possible on a given topic. Its contribution to the development of communication skills lies primarily in the fact that each participant can communicate their idea without being subjected to assessment, evaluation, or criticism. Every thought, every idea is accepted and written down. Even the seemingly “silliest” one can inspire others.

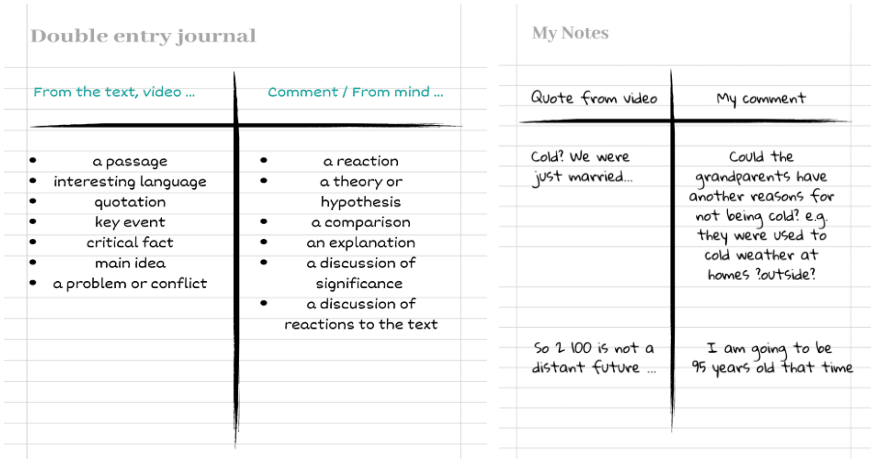
- Source: **http://www.ucenibezucebnic.cz/index.php?id=3006**

### Double entry journal

The Double-Entry Journal method enables participants to record their responses to a text as they read/see it. The purpose of this strategy is to give participants the opportunity to express their thoughts and become actively involved with the material they read.

Each participant first divides a sheet of paper into two columns, then reads the assigned text. At their discretion, participants choose sentences that caught their attention, write them down on the prepared paper and add their own

reactions or comments to it.




Left – a structure of Double entry journal

- Source: Double-Entry Journals | AdLit. *AdLit | All About Adolescent Literacy* [online]. Copyright © Allison Shelley [cit. 02.02.2023]. In: **https://www.adlit.org/in-the-classroom/strategies/double-entry-journals**

Right – exemple of Double entry journal for the video “About time and water”

### Free writing

Free writing is one of the brainstorming or reflective methods that allows us to write down on paper everything that comes to our mind about a certain topic/subject. Free writing helps us discover unexpected ideas, thoughts and connections within ourselves.

When practising free writing you don't need to think about sentence structure, grammar or spelling - you just write for a certain period of time without stopping.

Free writing rules:

- Write everything you can think of about the topic for the entire set time.
- Write coherent text, not just single words or points.
- Do not go back to what you have written, do not correct, do not improve what you have written.
- Keep writing even if you can't think of anything, write down auxiliary sentences ("Now I can't think of anything..."), but try to return to the topic.
- Don't let spelling hold you back in your ideas.

Sources:

- Free writing - Reflective Practice Toolkit - LibGuides at University of Cambridge Subject Libraries. [online]. Copyright © Cambridge University Libraries [cit. 02.02.2023]. In: **https://libguides.cam.ac.uk/reflectivepracticetoolkit/freewriting**
- Volné psaní. Rutová Nina. [online] Copyright © Respektneboli. [cit. 01. 05. 2019]. In: **http://www.respektneboli.eu/pedagogove/archiv-metod/volne-psani**

### Graphic harvesting

Graphic harvesting adds engagement and energy to a room, increases group learning and supports participants memory retention of the content over time. It involves a process of careful listening and synthesizing of information into an easy to navigate graphic.

It is a visual summary/reflection of the information from a seminar, lesson, certain topic that is drawn live at your event in real time. It combines drawings and texts.

- You can ask participants to share any idea, that they have after the lesson, or you can help them with specific questions:
- What are the links between climate change and time for you?
- How do you feel about climate change after the lesson?
- What ideas about climate change do you have now?
- What can be done to deal with climate change issues?


- Example: **https://www.youtube.com/watch?v=JSXSFlvV6vc**
- Source: **https://www.graphicharvest.co.za/graphic-harvesting**

### Blackout poetry

Blackout poetry is a type of “found poetry,” which means that the authors do not write their words; rather, they find meaning in works that already exist. With blackout poetry, someone will take an existing text such as a page from a book or newspaper. They then scan for words that generate inspiration and decide which words to use to construct a poem of sorts. The writer will then use a marker or other means to blackout (hence the name) all other words, leaving behind only the ones that give meaning to the new poem. Essentially, you can think of blackout poetry as a process that transforms an existing work into a new piece of art.

The overarching purpose is more of a search for meaning. Whenever someone creates blackout poetry, they are looking deeper into existing pieces of writing to try to uncover new stories. Blackout poetry can also be a great source to explore your own creativity and a unique method of generating social commentary. How to do it:

***Find a text*** — an old book, magazine, newspaper article, diary entry, or any other physical piece of writing that one wants to work with.

***Read the passage*** — keep an eye out for important words or phrases that you might use in your poem. You could loosely circle these with a pencil or take note of them on another piece of paper.

***Mark out what you don’t want in your poem*** — The most important step is to use a black marker, such as a sharpie, and mark through the parts of the text

that you are not interested in.

***Read the remaining words*** — read what you have left. There may be other words that you feel are unnecessary for the piece of writing that you're creating. If you have erased too much, it may be necessary to reconsider what you wanted the poem to say and utilize what remains in a new way. Photograph or scan your poem to share.

Sources:

- **https://www.blackoutpoetry.co/blog/what-is-blackout-poetry-the-complete-guide-and-examples**
- **https://poemanalysis.com/genre/blackout-poetry/**

## Glossary

**Adaptation** - Adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects. Adaptation to climate change is the act of adjusting to life in a changing climate and involves preparing for actual (current climate change) or expected future climate. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.

**Adaptive capacity** - The potential of a system, institutions, humans and other organisms to adjust to climate change (including climate variability and extremes) to moderate potential damages, take advantage of opportunities, and cope with the consequences.

**Biodiversity** - The diversity of life on earth, from genes to species to ecosystems. Biodiversity refers to the variety of living things on Earth, such as plants and animals. As our planet warms from human activities, we'll likely have less and less biodiversity over time, changing the balance of all ecosystems.

**Carbon cycle** - Circulation of carbon atoms through the Earth systems as a result of photosynthetic conversion of carbon dioxide into complex organic compounds by plants, which are consumed by other organisms, and return of the carbon to the atmosphere as carbon dioxide as a result of respiration, decay of organisms, and combustion of fossil fuels.

**Climate Change** - A change in the state of the climate that can be identified (for example, using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change encompasses both increases and decreases in temperature, as well as shifts in precipitation, changing risk of certain types of severe weather events, and changes to other features of the climate system. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use.

**Climate Variability** - variations in the mean state and other statistics (i.e.,

standard deviations, occurrence of extremes, etc.) of the climate across all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability). Drivers of climate variability include the El Niño Southern Oscillation and other phenomena.

**Climate** - the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classic period for averaging these variables is 20 to 30 years. The relevant quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

**Climatology** - the study of the atmosphere and weather patterns over a time period, focused on the natural and artificial forces that influence long-term weather patterns.

**Confidence** - the validity of a finding based on the type, amount, quality and consistency of evidence (e.g., mechanistic understanding, theory, data, models, expert judgment) and on the degree of agreement.

**Decarbonization** - the process by which countries or other entities aim to achieve a low-carbon economy, or by which individuals aim to reduce their consumption of carbon.

**Ecosystem** - an ecosystem is a functional unit consisting of living organisms, their non-living environment and the interactions within and between them. The components included in a given ecosystem and its spatial boundaries depend on the purpose for which the ecosystem is defined. Ecosystem boundaries can change over time. Ecosystems are nested within other ecosystems and their scale can range from very small to the entire biosphere. In the current era, most ecosystems either contain people as key organisms, or are influenced by the effects of human activities in their environment.

**El Niño and La Niña** - El Niño and La Niña are part of the El Niño Southern Oscillation, a periodic fluctuation of ocean temperatures (warmer, colder, or average) along the equator in the tropical Pacific Ocean that affects the global climate.

**Extreme Weather Event** - an extreme weather event is an event that is rare at a particular place and time of year. Definitions of rare vary, but an extreme weather event would normally be as rare as or rarer than the 10th or 90th percentile of a probability density function estimated from observations. By definition, the characteristics of what is called extreme weather may vary from place to place in an absolute sense. When a pattern of extreme weather persists for some time, such as a season, it may be classed as an extreme climate event, especially if it yields an average or total that is itself extreme (i.e., drought or heavy rainfall over a season).

**Feedback** - The process through which a system is controlled, changed, or modulated in response to its own output. Positive feedback results in amplification of the system output; negative feedback reduces the output of a system.

**Fossil fuels** - Fossil fuels come from decomposed plants and animals in Earth's crust. These fuels contain carbon and hydrogen, which can be burned for energy. Examples are coal, oil, and natural gas.

**Global Climate Models** (GCM) - Mathematical models that simulate the physics, chemistry, and biology that influence the climate system.

**Global change** - Changes in the global environment that may alter the capacity of the Earth to sustain life. Global change encompasses climate change, but it also includes other critical drivers of environmental change that may interact with climate change, such as land use change, the alteration of the water cycle, changes in biogeochemical cycles, and biodiversity loss. [See also climate change]

**Global warming** - The observed increase in average temperature near the Earth's surface and in the lowest layer of the atmosphere, as one of the consequences of radiative forcing caused by anthropogenic emissions. Global warming is a type of climate change; it can also lead to other changes in climate conditions, such as changes in precipitation patterns.

**Greenhouse gases** - Gases that absorb heat in the atmosphere near the Earth's surface, preventing it from escaping into space. If the atmospheric concentrations of these gases rise, the average temperature of the lower atmosphere will gradually increase, a phenomenon known as the greenhouse effect. Greenhouse gases include, for example, carbon dioxide, water vapor, and methane. Related terms: Heat trapping gases, Greenhouse Effect

**Indigenous knowledges** - In brief, refers to Indigenous peoples' systems of observing, monitoring, researching, recording, communicating, and learning that are required, as for any group, to support survival and flourishing in an ecosystem and the social adaptive capacity to adjust to or prepare for changes.

**Meridional Overturning Circulation** (MOC) - Meridional (north–south) overturning circulation in the ocean quantified by zonal (east–west) sums of mass transports in depth or density layers. In the North Atlantic, away from the subpolar regions, the MOC (which is in principle an observable quantity) is often identified with the thermohaline circulation, which is a conceptual and incomplete interpretation. It must be borne in mind that the MOC is also driven by wind and can also include shallower overturning cells such as occur in the upper ocean in the tropics and subtropics, in which warm (light) waters moving poleward are transformed to slightly denser waters and subducted equatorward at deeper levels.

**Mitigation** - Mitigation is the act of reducing the drivers of climate change. This involves cutting greenhouse (heat-trapping) gases going into the atmosphere, either by reducing their sources (such as fossil fuels) or by enhancing their "sinks," which absorb more carbon dioxide than they release.

**Nutrients** - Chemicals (such as nitrogen and phosphorus) that plants and animals need to live and grow. At high concentrations, particularly in water, nutrients can become pollutants.

**Ocean acidification** - The process by which ocean waters have become more acidic due to the absorption of human-produced carbon dioxide, which

interacts with ocean water to form carbonic acid and lower the ocean's pH. Acidity reduces the capacity of key plankton species and shelled animals to form and maintain shells.

**Ozone** - A colorless gas consisting of three atoms of oxygen, readily reacting with many other substances. Ozone in the upper atmosphere protects the Earth from harmful levels of ultraviolet radiation from the Sun. In the lower atmosphere ozone is an air pollutant with harmful effects on human health.

**Paleoclimate** - The climate that existed during the period before modern record-keeping. Paleoclimate can be measured with "natural thermometers" such as ice cores or tree rings.

**Parts per million** - The term "parts per million" refers to the number of carbon dioxide molecules per million molecules of dry air.

**Permafrost** - Ground that remains at or below freezing for at least two consecutive years.

**Projection** - a potential future evolution of a quantity or set of quantities, often computed with the aid of a model. Unlike predictions, projections are conditional on assumptions concerning, for example, future socio-economic and technological developments that may or may not be realized.

**Resilience** - A capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment.

**Scenario** - Sets of assumptions used to help understand potential future conditions such as population growth, land use, and sea level rise. Scenarios are neither predictions nor forecasts. Scenarios are commonly used for planning purposes.

**Sea Level Rise** - increases in the height of the sea with respect to a specific point on land. Eustatic sea level rise is an increase in global average sea level brought about by an increase in the volume of the ocean as a result of the melting of land-based glaciers and ice sheets. Steric sea level rise is an increase in the height of the sea induced by changes in water density as a result of the heating of the ocean. Density changes induced by temperature changes only are called thermosteric; density changes induced by salinity changes are called halosteric.

**Sequestration** - the uptake (i.e., the addition of a substance of concern to a reservoir) of carbon containing substances, in particular carbon dioxide (CO2), in terrestrial or marine reservoirs. Biological sequestration includes direct removal of CO2 from the atmosphere through land-use change (LUC), afforestation, reforestation, revegetation, carbon storage in landfills and practices that enhance soil carbon in agriculture (cropland management, grazing land management). In parts of the literature, but not in this report, (carbon) sequestration is used to refer to Carbon Dioxide Capture and Storage (CCS).

**Stressor** - Something that has an effect on people and on natural, managed, and socioeconomic systems. Multiple stressors can have compounded effects, such as when economic or market stress combines with drought to negatively

impact farmers.

**Sustainable Livelihood** - livelihood that endures over time and is resilient to the impacts of various types of shocks including climatic and economic.

**Temperature** - the expected temperature in degrees, valid for the indicated hour. Global temperature is an average of air temperature recordings from weather stations on land and sea as well as some satellite measurements. Extreme temperature events (i.e. maximum, minimum) may have short-term durations of a few days with temperature increases of over 5°C above the normal temperatures.

**Tipping Point** - a level of change in system properties beyond which a system reorganizes, often abruptly, and does not return to the initial state even if the drivers of the change are abated. For the climate system, it refers to a critical threshold when global or regional climate changes from one stable state to another stable state. The tipping point event may be irreversible.

**Traditional knowledge** - Knowledge, practices and beliefs that have been handed down through generations.

**Uncertainty** - An expression of the degree to which future climate is unknown. Uncertainty about the future climate arises from the complexity of the climate system and the ability of models to represent it, as well as the inability to predict the decisions that society will make. There is also uncertainty about how climate change, in combination with other stressors, will affect people and natural systems.

Sources:

- **https://climate.nasa.gov/glossary/?page=0&per_page=9999&order=title+asc&search=&alpha=A-Z%3Atitle**
- **https://www.globalchange.gov/climate-change/glossary**
- **https://climateknowledgeportal.worldbank.org/media/document/CCKP_glossary.pdf**

## Resources

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# Methods

## Activities: Overview of Competences and Subjects

| Competences | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 |
|---|---|---|---|---|---|---|---|---|
| Ability to adopt new competences | ● | | | ● | ● | ● | ● | ● |
| Active citizenship | | ● | ● | ● | | ● | ● | ● |
| Cultural awareness | ● | ● | ● | ● | ● | ● | ● | ● |
| Cultural expression | ● | | | ● | ● | ● | ● | ● |
| Digital competences | | ● | | ● | ● | ● | | |
| Interpersonal skills | ● | ● | ● | ● | ● | ● | ● | ● |
| Literacy | ● | | | ● | ● | ● | ● | ● |
| Multilingualism | | | | | | ● | | |
| Technological competences | | | | ● | ● | ● | | |

| Subjects | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 |
|---|---|---|---|---|---|---|---|---|
| Literature / Language | | | | | ● | ● | | ● |
| Mathematics | | | | | | ● | ● | |
| Natural Sciences | | | | | | ● | ● | |
| Physics and Chemistry | | | | ● | | ● | ● | |
| Arts and Crafts | | | | ● | ● | ● | | |
| Drawing | | | | | ● | | | |
| History and Geography | | ● | | ● | | | | ● |
| Civic / Citizenship education | | ● | | | | | ● | |
| Ethics | | ● | | | | | | |
| Any subject | ● | ● | | | | | | |

## Activities: Overview of contribution of these activities to discuss the topic of Climate Change

Activity 1

Activity 2 The lesson encourages participants to **look at development from different perspectives** and to understand that climate change is largely influenced by the way we live our lives and the direction we want our communities or countries to develop. This lesson can encourage participants to think about the **kind of development they want** and to realise that sustainable development is the only option for the future of humanity on this planet.

Activity 3

**Activities 4 and 5** invite participants to reproduce and reflect on two processes that often prepare the content they encounter in media. The first is meant to make participants **conscious of the imagery production process**, since media imagery is frequently designed or commissioned rather than found, while the second aims to **shed light on the editorial process behind messages**, especially when it regards scientific information presented in media, which is almost always a very small, curated and decontextualized part of the complex amount of information found in the research such messages are based on.

**Activity 6** engages participants in storytelling to **consolidate the ideas learned** in **Activities 4 and 5**, but also to demonstrate the role played by **the order in which information is presented** as this order **alters the meaning**, a problem to be concerned with especially in social media, since platforms present small fragments of information in sequences that invite readers to make erroneous links.

**Activity 7** aims to engage participants in replicating the process of political debate, so that they **understand that politicized messages are group efforts**, even when messages appear to be “coming from the heart”, and to go through the process of crafting such messages which can help them **be more critical and analytical with the information they receive** in the future.

Activity 8 This activity is designed to make participants conscious of the complexity of climate change and encourage them to **think about climate change from various perspectives, globally as well as historically**. The activity aims to **strengthen their relationship with land**, imagine a sustainable future and learn about possible actions to empower participants.

# Philosophy for Communities

Activities

## 1. The 10 steps of Philosophy for communities around climate activism

**Summary**

The methodology is designed to develop participants´ **critical thinking and social skills like empathy, active listening and cooperation**. It is important to emphasize that its goal is not knowledge gaining. The methodology can be used with all age groups, including adults or even parents. It can easily be integrated into different subjects of the school curriculum.

It is a great tool to help participants deal with complex issues such as climate change.

**Useful Hints**

For participants who are familiar primarily with frontal forms of teaching, it is suggested to highlight benefits of this method, the **importance of competences and skills** it aims at and its **significance in coping with complex issues** such as climate change.

It might be challenging for educators to start using this method with participants who are not familiar with similar teaching methods. **It is important not to give up and continue to build skills** with participants gradually. It is recommended to use the P4C method regularly so that participants can gradually develop their own critical thinking skills and creativity.

It is important to always create a safe space before starting an enquiry with the community.

Useful links:

- **Dialogue Works**
- **The P4C Co-operative**
- **Sapere P4C**
- **The Philosophy Man**

## Through Others' Eyes

Activities

**2. Development and Climate Change**

**3. What do you see?**

| | |
|---|---|
| **Summary** | This method provides a simple and interesting way to show the importance of trying to see or **understand things from different perspectives**. The aim of the method is to encourage participants to think critically about why it is important to be aware of the fact that people understand things in different ways and **how our own perspectives shape our understanding of the world**. |
| **Useful Hints** | Some steps in **Activity 2: Development and climate change** can be used as separate activities; however, **the TOE methodology is designed to build on one activity after another** so excluding one activity would affect the overall goal of the lesson. |
| **Activities** | **Activity 2** includes 5 interlinked activities on sustainable development and climate change and can be used individually or as a whole lesson.<br><br>**Activity 3** is an additional activity can be used to further stimulate critical thinking.<br><br>**How to work with the activities:**<br><br>The lesson is just a suggestion of how you can use each activity. They can be skipped, adapted or rearranged depending on the age and/or needs of the participants.<br><br>In any case, each activity should be followed by some form of reflection. |

## Visual literacy and critical thinking

Activities

**4. If climate change was just a picture what would it be?**

**5. Climate change in a poem**

**6. A story in dozens of words**

**7. Debate teams**

**Summary**

Visual literacy is about the **ability to interpret and create** visuals to communicate. It encourages interaction and critical thinking in a room at all levels, creating space for different subjects and topics. Therefore, visual literacy is essential for developing critical thinking. This goal is **achieved by analysing an image using multiple perspectives**. Group interaction and discussions (free-flowing opinions and views) further the learner's thinking and creativity.

**Useful Hints**

Through visual literacy-oriented exercises, it is easy to share a common ground where the participants can **develop their skills** in critical thinking, active listening and creativity. It can also **entail different dynamics**: individual-group, group-individual, or as a through-and-through group activity.

It might be good to explain to participants that this method is **focused on building these skills** mentioned above and how important they are for the challenges they will face in the future.

Useful links:

- **Visual Literacy Skills**
- **Forth Wall Books**
- **Changing the Story**
- **Picturing Climate**

## Causes and Consequences

Activities

### 8. Climate change captured in time

**Summary** This approach introduces a critical insight into the historical, social or geographical contexts of global issues.

**It contains:**

- Historical and current causes and consequences of global issues.
- Incentive for teachers and participants to ask questions: "Why and how?"
- Analysis of global issues over time.
- Different perspectives on global issues and our role regarding them.
- The interconnectedness of different topics - global history is not just the history of humanity but of the whole planet and all ecosystems.

It is focused on **global history**:

Global history is more critical than conventional history because it says that all the questions we ask, the methods we pursue, the plot we create are just one possible question, method, plot line. Global history is never neutral. **No history is neutral**, even if it is not discussed. Global history takes nothing for granted, so you have to discuss everything. Global history is moving away from nationalism and Eurocentrism. It emphasizes the interconnectedness of the world and an **understanding that cultural and material exchanges have been constantly altering different areas of the planet for millennia**.

**Approach connects:**

• Methods of critical thinking, discussion methods, philosophical approaches, etc.

• History, geography and social sciences.

**Link to the climate change:**

Climate change is a global issue: it affects all human beings as well as all plants and animals and affects all areas of our planet. Climate change is a highly interdisciplinary topic: its nature is physical, its causes are economic and historical, its consequences are social and environmental.

## Useful Hints

The created lesson uses examples from the **Geohistory textbook**. The lesson can be expanded with other materials or activities (e.g. Climate migration) from the textbook.

Each chapter of the Geohistory textbook contains a section that contextualizes major **environmental changes** in different historical periods and the social, economic, and political changes that are closely linked to them. In this way, participants are constantly stimulated to consider interactions of natural factors and human activity and to incorporate political, economic and cultural analysis of the relationship between man and the environment into their learning.

The Geo-history textbook can be obtained at:

- **https://www.getupandgoals.eu/?Itemid=411**

## Activities / lesson

**Individual activities:**

8 activities related to the topic of climate change that could be used separately or as a complete lesson “Climate change captured in time”.

**How to work with activities:**

Lesson is just a suggestion on how to use the individual activities. They can be skipped, adjusted, or rearranged based on an educator´s needs.

In any case, some form of reflection should follow every activity.

# Activities

# Activity Sheet 1: The 10 steps of Philosophy for Communities around climate activism

Climate Activism 🕐 45-90 minutes

**8-28 participants** 🗓 **10 years or older** (can be adapted for any age group)

| | |
|---|---|
| **Educator** | … |
| **Goals** | To develop participants' **social and emotional skills, and democratic values**. |
| **Climate Literacy Goals** | … |
| **Competences** | • Literacy<br>• Cultural awareness and expression<br>• Interpersonal skills, and the ability to adopt new competences |
| **Subjects** | Any. |
| **Materials** | Pens, paper, sticks for voting (optional). |
| **Methods** | Group work, discussion groups, team-building activities. |
| **Sources** | Articles:<br>• **https://www.theguardian.com/environment/2022/nov/05/climate-activists-glue-themselves-to-frames-of-two-goya-paintings-in-madrid** 🌍<br><br>This is just an offer for educators. The text – or similar ones – can be shortened and translated to national languages. Then, it can be printed and handed out to participants - individuals, pairs or small groups - or screened with a projector or smart board.<br><br>• Comic strips:<br>  ○ **https://www.greenhumour.com/** 🌍<br>  ○ **https://www.ecocomicsdatabase.com/** 🌍<br>• Films<br>  ○ Richard Fleischer, *Soylent Green* (1973)<br>  ○ Roland Emmerich, *The Day after Tomorrow*(2004)<br>• Songs<br>  ○ John Lennon, *Imagine*<br>  ○ Louis Armstrong, What a Wonderful World<br>  ○ Imagine Dragons, *Radioactive*<br>  ○ Will.I.AM, *SOS* |

## Activity 1: The 10 steps of Philosophy for Communities around climate activism 🕐 45-90 minutes

### Step 0: Creating a safe space

The room: see how to set it in **How to start: the room**, in **Introduction**.

The guidelines: see **How to start: the group**.

### Step 1: Preparation – warm up questions ⓘ

Moving into the dialogue section, the educator may start with playing with questions and words. These are thinking-skill games that focus on the person speaking about a topic or issues.

ⓘ In case participants are not used to discussions, the educator can add more introductory activities to build discussion skills.

Examples:

- Describe yourself in three words.
- If you were 20% more creative, what would you achieve?
- If you could trade lives with anyone for a day, who would it be and why?
- Who is your favourite cartoon character and why?
- Where would be the worst place to get stuck?

### Step 2: Presentation

The educator presents a stimulus to participants. The stimulus can be presented on a screen or printed and handed out to participants. ✉

✉ There are examples of stimuli related to climate change listed in the Sources above.

However, there are countless options for good stimuli (see **Annex 1.1** Choosing a stimulus for suggestions on how to select a good stimulus and some examples). Any kind of stimulus can be used; depending on the aim of the educator, current media news, etc.

### Step 3: Thinking time

Individual work. The educator gives participants some time to think about the issues raised by the stimulus. They can write down their first impressions / questions.

### Step 4: Conversation

The educator creates small groups of 3-4 or pairs and asks them to share their first impressions among themselves.

### Step 5: Formulation

The educator asks the small groups to formulate an open (philosophical) question based on their first impressions and the conversation they had within their groups.

Unlike close-ended questions, open questions cannot be answered by easy 'yes'/'no' or obvious answers. Open questions are about abstract concepts and/or values; therefore, there is no right or wrong answer to them. They prompt a longer conversation to discover a unique perspective of participants and often result in a clash of opinions or a heated debate. However, it is important to keep the discussion respectful and safe for all participants. ✉

✉ See **Annex 1.2** Open questions for suggestions on how to form a good open question.

For the inquiry, we are looking for open questions that go beyond the stimulus.

Small groups / pairs write their questions on an A4 sheet, so that everyone in the group can read them (to ensure visibility, use at least A4 size paper, big letters and a thick marker in a clearly distinguishable colour).

### Step 6: Airing

One by one, each group reads out their questions, displaying their papers with the questions written on them in the middle of the room so that everyone can see them well. ⓘ

ⓘ Before airing the questions, the educator walks around the room to checks each group, whether they asked an open/philosophical question or not. If not, they help them formulate some. Only open questions should be shared.

### Step 7: Selection

The educator breaks up the small groups and asks participants to select one question individually.

Which is the one they would like to discuss the most?

Everybody votes. (Methods to secure anonymity can be applied, but it is not a must.)

Depending on the group and/or the topic they vote for, different methods can be applied. Some suggestions:

Open methods (when participants can see each other's choice)

- Participants gather around the question they choose
- Participants draw a line on the paper with question they prefer
- The educator distributes voting sticks (= matchsticks/tokens) to participants, and they put their sticks/tokens on the paper with the question they prefer
- Variations of the latter three: Participants may have more than one vote, for example: 3. In this case they have more options to express their preferences: put all 3 sticks/tokens/lines on one question, or put 2 to the most preferred one and 1 to the second best, etc.

Secret methods (when participants do not know who votes for which question)

- Participants stand up in a circle, everybody facing inside the circle. They put their hands behind their back. The educator reads out the questions one by one. Participants vote with their thumbs up behind their back when they hear the preferred question.
- etc.

### Step 8: First Words

This is individual work again. For a few minutes, participants think silently about their first thoughts regarding the selected question.

### Step 9: Building

Participants start a conversation about the question. The teacher is only a facilitator and should keep the following rules in mind during facilitation:

- Withhold judgment – respond to student answers in a non-evaluative way, e.g. positive but neutral responses such as 'Thank you', 'That's interesting'.

- Invite the whole group to respond – by saying things such as: ‘How many people agree or disagree with that point of view?’ (Hands or thumbs up, down or side) You can also ask questions such as ‘Having heard that, what questions might we ask?’
- Ask for a summary – promote active listening, e.g., ‘Could you summarize Kim’s point?’ ‘Can you explain what Jane has just said?’
- Invite a range of responses – model open-mindedness by inviting students to consider different points of view: ‘There is no single correct answer to this question. I want you to consider alternatives.’
- Encourage student questioning – invite students to ask their own questions before, during or after discussion. ‘Does anyone have a question about what has been said?’

### Step 10: Last Words

It is important that participants are given time at the end of the discussion to reflect upon what has been said, what they have heard and upon their own thoughts, views and opinions on the question or issue that has been discussed.

Special attention should be given to reflection on emotions. Educators encourage participants to identify their emotions they felt during the activity. They can express their feelings by talking about them (answering questions), writing about them or using creative ways to express them (drawing, etc.).

After a period of reflection each participant should be given the opportunity to share their final thoughts on the question with the rest of the group, possibly by writing it down in a sentence and then compare it to the one they wrote during **Step 3**.

# Activity Sheet 2: Development & Climate Change

Critical thinking & Climate change 180-225 minutes

12-30 participants 13 years and above

| | |
|---|---|
| **Educator** | The role of the educator is to **facilitate** the activities and **encourage** participants to actively participate and think and reflect critically on the topics covered. |
| **Goals** | Participants **explore** and question their views and understandings of the development; **learn** that people from different communities/cultures/parts of the world can have different views on development; **understand** the problematic nature of a Eurocentric worldview; **understand** that the prevailing mainstream capitalist perspective of development is not sustainable and is a major contributor to climate change; **analyse** the main causes and consequences of climate change and how they are linked to the development. |
| **Climate Literacy Goals** | The lesson encourages participants to **look at development from different perspectives** and to understand that climate change is largely influenced by the way we live our lives and the direction we want our communities or countries to develop. This lesson can encourage participants to think about the **kind of development they want** and to realise that sustainable development is the only option for the future of humanity on this planet. |
| **Competences** | • Active citizenship<br>• Cultural awareness<br>• Digital competences<br>• Interpersonal skills |
| **Subjects** | Ethics, Geography, History, Active citizenship education etc. (*depends on the national curriculum). |
| **Materials** | Posters, Coloured markers, Scissors – for each group, Paper glue – for each group, Computers/tablets with internet connection, Projector, Speakers, **Annexes 1-6** (printed), sets of magazines covering various aspects of human life (different products, architecture, nature, fashion, art, education, transportation, sport, sustainable living, natural catastrophes, energy etc.) – for each group. |
| **Methods** | Brainstorming, Individual work, Work in pairs, Work in small groups, Visualization, Case studies, Creative methods, Use of video material, Group discussion, Reflection. |
| **Sources** | Vanessa Andreotti, Lynn Mario T. M. de Souza (2008): *Learning to read the world Through Other Eyes*. Global Education, Derby, UK<br>• **https://decolonialfuturesnet.files.wordpress.com/2018/04/toe.pdf** |

## Activity 2: Development & Climate Change 🕐 180-225 minutes

### Exercise 1: Discussing ideas about development

The activity starts with a short reflection on how the participants understand the concept of development. We often believe that we all understand social phenomena in the same way and do not think we could understand them in a different way.

As climate change is largely influenced by people, through our lifestyles and the direction in which we want our communities or countries to develop, it is important to consider how we understand development in the first place.

Step 1:

The educator asks the participants to think about what development ➲ means to them. They should say the first things that come to their minds. The educator writes their associations on the board.

➲ The question "What is development"? is a philosophical question and can be used as a stimulus for **Activity 1**.

Step 2:

The educator asks the participants to sit down in pairs and distributes the sheets with four ideas about development (**Annex 2.1**). The participants then discuss in their assigned pairs which of these ideas (if any) is most closely associated with their understanding of development.

Participants share their views with the others and explain why they chose a particular idea of development or why they did not choose any of them.

Step 3:

The educator distributes paper and pens to the participants and asks them to write down, individually and in their own words, their understanding of development.

When they have finished, the educator forms small groups of 3–5 participants and distributes a poster and markers to each group. The groups discuss different understandings of development that each member of the group has written individually on the paper. Then each group discusses and tries to agree on a common understanding of development and writes it on the poster.

Step 4:

The participants sit in a circle. The educator invites a representative from each group to present a poster with the understanding of development agreed by the group. Participants discuss the similarities and differences between the groups.

The educator asks the participants to reflect on the following questions (only some of the questions can be chosen, depending on the age group and the time available for the implementation of the activity):

- How do you think most people in your country understand development?
- Do you consider your country to be "developed"? Why/why not?
- Do you think that people from other countries understand

development in the same way as you do? Why/why not?
- How else do you think development could be understood?

The educator explains to the participants why it is important to be aware of our Eurocentric view, how it influences our understanding of concepts like development, why it is important to consider other views and perspectives, etc.

🕐 45 minutes

## Exercise 2: Different perspectives and aspects of development

The mainstream media and political and social trends present and promote development as a constant economic growth – more and more goods and services. They fail to present the problems that such economic growth poses as an enormous threat to the environment, people and all other living beings. Countries or communities that live in greater harmony with nature are often portrayed in the media as "less developed". But is this true? If we want to continue to live with dignity on planet Earth and preserve it for future generations, we need to ask ourselves what kind of development we want. The fact is that we can only achieve this through sustainable development.

Step 1:

The educator asks the participants to form the same small groups again and distributes the worksheets with different perspectives of development (**Annex 2.2a**) ✉. Each group can be given only one or two statements from **Annex 2.2**.

✉ Learning about the negative impacts of western development on indigenous peoples can evoke strong feelings, defensive reactions and/or denial, especially in participants who have no prior knowledge of this issue. **Annex 2.2b** provides basic information on this very complex topic, primarily for educators, but it can also be shared with participants.

Participants are asked to:

a) underline the parts of the statements that they find most unusual/interesting/different from their own (group) perspective of development, and discuss what they think about it;
b) reflect on their feelings and thoughts that came to their minds when reading the statements;
c) discuss the similarities or differences between these perspectives and their own perspectives of development.

Step 2:

The educator distributes to the participants the worksheets with some aspects of the two different perspectives of development (**Annex 2.3**). They should try to connect these aspects both to the statements they have read before and to their own understanding of development and mark them on the worksheets.

Step 3:

The participants sit in the circle and share their thoughts about the different aspects/perspectives of development. The educator asks them how they can connect these aspects to their ideas about development and what their practical implications could be. The educator encourages them to think about concrete examples from their local environment as well as from a global perspective. ⓘ

ⓘ At the end of this step, a time for reflection on emotions can be added.

🕐 30 minutes

## Exercise 3: Imagining the future and creating a mosaic of future life

Participants will imagine their life in the future. They will think about what kind of planet they want to live on. It is important to stimulate their imagination, but also to check what ideas they have about their future life, as they are undoubtedly constantly influenced by the images and messages spread by the media. The aim of the activity is, on the one hand, to encourage the participants to reflect on how they imagine their life in the future, and on the other hand, to consider whether such a future is possible if the majority of the world follows the prevailing capitalist model of development.

Step 1:

The educator asks the participants to individually imagine their future life on planet Earth (e.g., in the year 2050) ⓘ. They can think about their local environment, where they and their family live, what they do for a living, how they spend time with their friends, what they eat, what kind of transport they use, what their hobbies are, where they go on holiday, what problems they are facing, etc.

ⓘ The method of visualisation can be used: the participants close their eyes and the educator asks them questions about their future life (slowly, one by one) in order to stimulate their imagination.

Step 2:

The educator creates small groups of participants (3–5) and distributes a set of magazines, posters, scissors, paper glue, and coloured markers to each group. The participants can use any of these resources to create a mosaic of their future life. They can choose different images from the magazines that could represent their ideas about their future life, cut them out, and stick them on the poster. If they want, they can draw other things that might be missing from the magazines. Each group then presents their poster to the others and explains what their life will look like in 2050 ⓘ.

If there is more time available, the educator can ask the participants to form two groups:

- One group can imagine the future life if the majority of people will follow the current mainstream capitalist idea about development (ASPECT: Humans outside of nature in a relationship of dominance, control and exploitation);
- The other group can imagine the future life if the majority of people will follow the idea of sustainable development and live in harmony with nature (ASPECT: Humans as part of nature in a relationship of reciprocity).

🕐 45 minutes

## Exercise 4: The causes and effects of climate change

The participants will explore the causes and consequences of climate change and what will have the biggest impact on their lives in the future. They will also consider how their own ideas about development and those of people from other cultures relate to this. They will learn about the concept of sustainable development and also discuss possible alternatives to development and ways in which our society can reduce the negative impact we have on the environment.

Step 1:

The educator places the cards explaining the effects of climate change (**Annex 4a**) randomly on the floor. The participants walk around the room and read all the cards carefully. They then stand next to the card with the effect they think will have the biggest impact on their lives in the future (as they have previously imagined it). Ideally, the participants gather around different cards. However, as some aspects of socio-economic type might be easier for the participants to understand and therefore more likely to be chosen, the educator may need to redistribute them so that there are no more than 5 or less than 2 participants standing next to each card. Once groups of participants are formed around

ⓘ If there is enough time, the educator can ask the participants to imagine life in the even more distant future (e.g. the life of their children, grandchildren, etc.) and share their ideas with each other.

each card, the educator asks each of the groups:

a) Why did you choose this particular effect of climate change?
b) How do you think this effect will impact your life in the future?

The educator asks the groups to continue the discussion about possible causes for the specific effect of climate change.

Step 2:

While the groups continue their discussion, the educator places the cards explaining the causes of climate change (**Annex 2.4b** ⓘ) randomly on the walls . When the participants have finished discussing, they go around the classroom, read all the cards carefully, and think about how they could change their imagined future life to mitigate the causes of climate change.

ⓘ If you are working with a younger age group, you can simplify the descriptions on the cards.

Step 3:

The participants sit in the circle and continue the reflection. The educator asks them about their feelings, thoughts and ideas that came to their mind while thinking and discussing the causes and effects of climate change. The educator also asks them about the impacts climate change is already having and will have on people's lives (e.g. health risks, food production, forced migration, conflicts) and on nature (e.g. species extinction, melting glaciers, extreme heat waves) in their country and around the world, and how these effects are interlinked.

The educator shows to the participants some videos on climate change, e.g.:

- **Nature Is Speaking – Julia Roberts is Mother Nature** (Conservation International, 2014)
- **His Epic Message Will Make You Want to Save the World** (Short Film Showcase, National Geographic, 2017)
- **How Earth Would Look If All The Ice Melted** (Science Insider, 2015)
- Climate change is happening now: Meet the people on the front lines" (The Guardian, 2021)
- **Climate Change 2022: Impacts, Adaptation & Vulnerability** (Intergovernmental Panel on Climate Change – IPCC, 2022)
- **Causes and Effects of Climate Change** (National Geographic, 2017)

Step 4:

The participants continue the discussion in relation to both their own ideas about development and those of people from other cultures. The educator helps them to understand why we need to strive for development that does not destroy the natural environment and limits the negative impact on the climate.

Step 5:

The educator shows the participants a short animation about sustainable development "**What is sustainable development?** " (World's Largest Lesson / Duration: 3:41) and asks them to think about how they can contribute to reducing climate change now, in the present. The educator writes their ideas on the board or invites participants to create a poster which they can then put

on the wall.

🕐 45 minutes

## Exercise 5: Climate change around the world

The mainstream media usually only show us images related to climate change when there is a major natural disaster somewhere or when something happens close to us. But we learn less from the media about the impact of climate change on the daily lives of people in different parts of the world. Participants will reflect on how climate change is already affecting our lives. They will explore which parts of the world are most at risk from climate change and what consequences we can expect if we follow the dominant capitalist idea of development and do not make radical changes in the way we live and think. They will rethink what development means to them and perhaps change their perspective on it.

Step 1:

The educator explains to the participants that they are going to look more closely at how climate change is affecting the lives of people around the world ⓘ. The participants are divided into 6 groups that correspond to the 6 continents (Europe, Africa, Asia, Latin America, North America, and Australia), and the educator distributes them the images with climate change hotspots (**Annex 2.5**), one continent to each group, and a copy of the glossary of terms used in the legend (**Annex 2.6**).

The groups first study the legend on the image of a continent to understand the symbols. Then they focus on the main effects of climate change and discuss the consequences of these changes for people and their local environment. ➲

ⓘ If available, a map of the participants' countries showing the hotspots of climate change in different regions can be used to compare the impacts of climate change.

➲ This step can be complemented with the "**Show your stripes**" exercise from **Activity 8**. The participants can compare both the climate hotspots map and Temperature stripes from their countries and think/discuss/reflect on the differences. For example, even though Hungary is not shown as being at risk on the Climate hotspots map, the Temperature stripes show a significant change in the local climate.

Step 2:

Using a large world map or projecting it on the wall (we recommend using the **Gall-Peters world projection** 🌍), the educator asks each group to locate the climate change hotspots of their continent on the map and explain to others the main effects of climate change on people and nature in that region.

Step 3:

Each group of participants is given access to a computer/tablet with an internet connection to watch a video about how climate change is affecting people's lives in different parts of the world (each group should watch a video from one of the continents).

- ASIA: **Indonesia reels under the impact of climate change and increased extreme weather events** 🌍 (DW News, 2021) / Duration: 11:14
- AFRICA: **Climate change threatens livelihoods in Africa** 🌍 (DW News, 2022) / Duration: 10:42
- AUSTRALIA: **Climate Emergency: Australia on the frontline of climate change** 🌍 (ABC News In-depth, 2021) / Duration: 10:58
- NORTH AMERICA: **No water, no life: running out of water on the California-Oregon border** 🌍 (The Guardian, 2021) / Duration: 16:14

- EUROPE: **Record drought poses serious threat to Europe's environment and critical infrastructure** (DW News, 2022) / 24:28
- SOUTH AMERICA: **Exit Honduras: A climate in crisis** (Fault Lines, Al Jazeera English, 2021) / 24:25

Groups that have watched shorter videos can use the computers / tablets to find some examples of how communities around the world have responded / adapted to climate change.

Step 4:

The educator invites the participants to sit in the circle and asks each group to present the impact of climate change on "their" continent. The educator can ask the participants the following questions:

- What surprised you the most?
- What will you remember after watching the video?
- What are the similarities and differences between the effects of climate change on people's lives on different continents?
- How are people in your country/region adapting to climate change?
- Do you think your family has already had to change their lives due to climate change, and if so, in what way?

The discussion should then focus on their views on human development and its consequences for people and the environment. The educator asks the participants to:

- Think about examples from their local environment and from other parts of the world.
- Think about the consequences of the mainstream capitalist idea of development for climate change and about possible development alternatives (e.g. degrowth).

The educator can introduce the participants to the different indexes used to measure development and discuss with them which of these indexes include an environmental component (healthy environment):

- **Human development Index** (HDI)
- **Gross Domestic Product** (GDP)
- **Gross National Happiness** (GNH)
- **Economic Complexity Index** (ECI)
- **Happy Planet Index** (HPI)

At the end of the discussion, the educator asks the participants if they would like to change their definitions of development that they wrote at the beginning. As a whole group, they can create a new definition of development.

🕐 60-90 minutes

## Activity Sheet 3: What do you see?

Critical thinking 15-20 minutes

4-30 participants 10 years of above

| | |
|---|---|
| **Educator** | … |
| **Goals** | Participants **explore and question their views** and understandings of the world around them. |
| **Climate Literacy Goals** | … |
| **Competences** | • Active citizenship<br>• Cultural awareness<br>• Interpersonal skills |
| **Subjects** | Any. |
| **Materials** | 2 pictures, computer, projector, speakers, internet connection. |
| **Methods** | Brainstorming, Group discussion, Reflection, Use of photo material, (Use of video material). |
| **Sources** | • **https://www.facebook.com/didyouknowpage1/photos/a.125227977584628/4599978616776186/?type=3**<br>• **https://www.youtube.com/watch?v=Vn9BUfUCL4I** |

## Activity 3: What do you see? 🕐 20 minutes

### Step 1: observation

Educator shows the first picture in **Annex 3.1**, asks participants to describe it and writes their answers on the board. Most probably they will describe it as "A deer is crossing the road". The educator asks them if there is any other possible explanation for what is happening in the picture.

### Step 2: Reflection

The educator shows the participants the second picture of **Annex 3.1**, with the caption and asks them what they think of this description: "The deer isn't crossing the road, the road is crossing the forest".

### Step 3: Exploration

The educator asks the participants if they know of any other similar examples and discuss them. The educator encourages them to reflect about the importance of considering different perspectives. Some other examples can be presented, e.g. the simple story of a blind men and an elephant:

- Video: **https://www.youtube.com/watch?v=Vn9BUfUCL4I**

# Activity Sheet 4: If Climate Change was just a picture what would it be?

Creating a Visual Campaign 90 minutes

8-28 participants 8-15 years 4-6 per group

**Educator**

**Prior to the session**, the role of the educator is to collect materials and assess/create the briefings. At the **start of the session**, the educator splits the participants into groups. **During the session**, the role of the educator is to facilitate the participants' activities.

**Goals**

The participants **create** a picture that conveys a climate change **message**. The participants may do online search, go outside to take pictures, use magazines and available materials, draw, and create collages.

**Climate Literacy Goals**

This activity is designed to make participants **conscious of the imagery production process**. In all media, but particularly in social media, images are powerful conveyors of messages. But often readers are not aware that these are the product of creation, editing and selection processes, that respond to a specific intention or communication goal (here presented as the briefing).

**Competences**

- Literacy
- Active citizenship
- Cultural awareness and expression
- Digital and technology-based competences
- Interpersonal skills, and the ability to adopt new competences

**Subjects**

Portugal: Arts and crafts; Natural sciences 5, 7, 8; Portuguese History and Geography 5,6 , History 8, 9, Geography 7, 8, 9

**Materials**

Phones, wool, magazines and newspapers, paper, post-its, colour pens and pencils, glue, and scissors. Computer with printer. Miro board or flipchart.

**Methods**

Brainstorming, group work, design, art-based projects, group play, presentation, discussion groups, Hands-on activities, Team-building.

**Sources**

Topical magazines (science, nature), Newspapers, Social media posts. Examples:

- **National Geographic**
- **United Nations**
- **NASA**
- **New Scientist**
- **BBC**
- **Climate Change News**
- **Smithsonian Magazine**
- **Time Magazine**
- **Science Illustrated**
- **Courrier International**

## Activity 4: If Climate Change was just a picture what would it be?

**🕐 90 minutes**

### Step 1 – Getting the briefing ➲

Each group receives a closed envelope with a briefing. The briefing includes a short message explaining the purpose of the activity and a target group that the participants need to consider while creating their picture.

For the activity, 4 to 8 briefings are prepared and randomly distributed to the groups.

Whenever possible, the educator selects relevant topics and prepares the briefings based on concerns participants have expressed recently ➲ or topics that are regularly exposed in mass media or social media. The educator may also aim to bridge the activity with the local context, producing briefings about local businesses, civil society organisations, etc.

Briefings examples in **Annex 4.1.**

🕐 15 minutes

➲ This step could be a follow-up of the **"Become a volunteer"** exercise from **Activity 8** lesson.

➲ If participants were previously engaged in **Activity 1,** consider using the questions they created then.

### Step 2 – Creating a picture

The group creates a picture that conveys their message. They can use digital devices and produce a digital collage, or they can use the materials provided in the activity (magazines, newspapers, etc) to produce a physical collage.

🕐 30 minutes

### Step 3 – Sharing the pictures.

The created pictures are shared, placed on the prepared blank wall or shared on a Miro board if they are digital.

Each group interprets what they see in the pictures from the other groups, and writes it down.

🕐 15 minutes

### Step 4 – Sharing the message.

Each group then shares the original message of their own image, and discusses the process and the difficulties of creating it.

🕐 20 minutes

### Step 5 – Sharing the experience.

The participants share their feedback, negotiated by each group, and their feelings regarding the experience. There are some examples of questions the educator can ask:

- Was it difficult to find a relevant picture?
- What did you struggle the most with?
- How did it make you feel to think about the assigned topic (single-use plastics, etc.)?

- How did it make you feel to create something that would help solve the problem?

🕐 10 minutes

## Activity Sheet 5: Climate Change in a Poem

Visual literacy and creative ways to address climate change 🕐 90 minutes

🧍 8-28 participants 🆔 10-99 years (or less, depending on topic) 🖌 4-6 per group

| | |
|---|---|
| **Educator** | **Prior to the session**, the role of the educator is to collect and select articles for the exercises. Then print copies for each participant. **At the start of the session**, the educator creates groups of participants. **During the session**, the role of the educator is to guide the activities. |
| **Goals** | The participants will **learn to reinterpret images** through choices of words. They will learn **time management and creativity**. The participants will use **language and literary skills** as well as drawing competences |
| **Climate Literacy Goals** | This activity is meant to **shed light on the editorial process behind messages**. In media, content creation and publishing is as much about what is shown as it is about what is not shown. Editors often omit information to guide readers to a particular conclusion. This activity, while fun, is meant for students to understand that the information found in media and social media is organized and selected from a wider pool of information, part of which is erased. |
| **Competences** | • Literacy<br>• Cultural awareness and expression<br>• Interpersonal skills, and the ability to adopt new competences<br>• Digital and technology-based competences |
| **Subjects** | Arts & Crafts; Language; Drawing. |
| **Materials** | Paper, colouring pens and pencils, glue and scissors, articles, photos, a thick black pen (various tips sizes). |
| **Methods** | Group work, drawing, presentation, language skills, Blackout poetry. |

## Sources

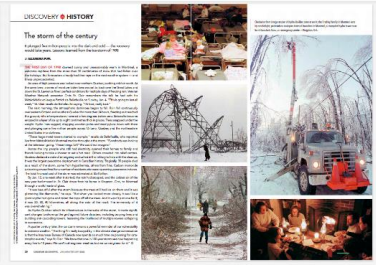
The articles are a centrepiece of the activity, so it is essential to select one or two regarding climate change: an extreme weather phenomenon with an impact on animal or human lives (extinction or climate refugees, e.g.). The articles **should be recent**, have strong visuals and be short. The educator must present the visuals on a separate paper as articles without photos allow students to focus more on the text.

Ideally, the educator should find recent articles in local media or online articles like these:

- Time, **10 ways the world got better in 2022**
- The Guardian, **Climate crisis prompts RHS to plan for sending rhododendrons north**

Or preferentially in printed magazines that offer text and image compositions that can value this work, such as the following:

*Canadian Geographic*, January 3rd, 2023, A tempestade do século




*National Geographic México*, December 1st, 2022, Aji Styawan

*Newsweek International*, February 2023, Mining for Support

## Activity 5: Climate Change in a Poem 🕐 90 minutes

### Step 1 – Reading the articles ⓘ

The educator presents the articles, and asks the participants to underline with different colours words that represent: climate change, positive or negative. Participants are supposed to use blue, green and red pens to underline the word connotations.

The choices are discussed while the articles are read out loud.

Lists of words related to climate change, positive and negative, are written on the wall.

🕐 15 minutes

ⓘ To support learning of a foreign language, educators can choose articles in a foreign language (English, German, Spanish).

### Step 2 – Connect the images ➲

The group turns its attention to the images in the article.

Only one participant of each group has access to the image, with the mission of describing it while others try to draw it based on the description. To make it easier for participants, the one participant that is describing the picture can do so in an organised way, e.g. divide the picture in four or more parts and describe what is located in the upper-right corner and so on. The educator should make all potential rules about how the picture will be described known in advance.

It is important to remind participants that the goal is not to create the most artistic, realistic or matching picture and that it will not be assessed in any way.

🕐 5 minutes

Everybody compares the drawings (without seeing the original images) and organises them by similarity on the wall.

🕐 15 minutes

Then the group speakers share the original image and compare it with the drawings that others in the group made. The educator asks the participants to think about the relation between images, words and the feelings conveyed. The educator also asks the participants for feedback about the activity.

- What part of the description elicited the idea for the image?
- Was the description changed to guide the pictures better?
- Do you think that the drawings improved the understanding of the original images?

🕐 10 minutes ⓘ

➲ Images created by participants may be used later in **Activity 8**, if the educator feels they can work for the Chart Comparison activity.

ⓘ This is a good moment to interrupt the activity for a break if needed.

### Step 3 – Blackout poems

Now the group looks to the second article, and the educator asks them to create a poem using the blackout poetry technique. ⓘ

The purpose of blackout poetry is to draw a new meaning from something initially made by another mind. Many blackout poets use words to string

ⓘ Using black markers can leave marks on surfaces, consider protecting them by another layer of paper underneath etc.

together a new story from the initial one.

Each participant chooses only one page from the article for the exercise. With a black marker, the participants cover all the words in the page, except those they wish to preserve to create a new meaning. Educators need to provide more guidance to younger students (how to choose words from the blackout poetry), while older participants and especially participants that have an experience working with this method may be asked to create haikus.

Each participant signs and dates the poem and glues it to a white card (as a small artwork). ⓘ

ⓘ Each participant can also decorate and draw over the article.

Examples of blackout poetry:


🕐 20-30 minutes

### Step 4 – Sharing the poems.

First, the participants share the poems in each workgroup.

🕐 10 minutes

Then they randomly exchange poems among participants in different groups. At that point, each participant has a random poem in their hands.

The final task is to mount a small exhibition on the wall using painter's tape. Each participant chooses the best spot for their random poem.

🕐 10 minutes

### Step 5 – Closure

The participants go around and see the exhibition. They can leave small comments and tags near the different poems.

They reflect on the whole experience and how images and words make us think and feel about important issues such as climate change. The reflection can be aided with some questions:

- What do you think is the common ground of the visual poems?
- How did you choose what words you wanted to keep?
- Do you think that the poem can still represent climate change?
- What did you struggle the most with?
- How did it make you feel to think about the topic covered by your

article?

- How did it make you feel to create something completely different?

The collage can be kept on display for some time after the session. ➲

🕐 10 minutes

➲ Poems created in this activity can be used as a stimulus for **Activity 1**.

## Activity Sheet 6: A Story in Dozens of Words

Visual literacy, scavenger hunt and storytelling 🕐 140 minutes (in two periods/classes)

8-28 participants 8-15 years 4 per group

| | |
|---|---|
| **Educator** | **At the start of the session**, the educator creates groups of participants. **During the session**, the role of the educator is to guide the activities.<br>ⓘ It is important for each pupil/pair to have a mobile phone available, if phones are not available, pupils can bring photos from home or use pictures from magazines. |
| **Goals** | The participants will learn how to **identify the best words** to describe climate change. Best words work as a starting point or trigger to find an image in a scavenger hunt as a deployer for the action. The participants will use words and images to **create a collective narrative** about climate change and everyday life - storytelling techniques. |
| **Climate Literacy Goals** | The goal of storytelling is double: on one hand, it aims to **consolidate the ideas learned in Activities 4 and 5**; secondly, it **explores the kulechov effect**, demonstrating that **the order in which information is presented alters the meaning** that audiences derive from it. This is a valuable awareness for any media, but particularly for social media, in which the fragmentation of information in small bites exposes the public to flows of information with multiple orders, affecting their understanding. |
| **Competences** | • Literacy<br>• Active citizenship<br>• Cultural awareness and expression<br>• Multilingualism<br>• Interpersonal skills, and the ability to adopt new competences<br>• Digital and technology-based competences |
| **Subjects** | Arts and crafts; science; Language. |
| **Materials** | Mobile phones, Post-its, paper, pens and computer with projector (or wall). |
| **Methods** | Group work, photography, writing, art-based projects, presentation, group discussion, hands-on activities, team-building exercises. |
| **Sources** | All resources created by pupils. |

## Activity 6: A Story in Dozens of Words 🕐 140 minutes

### Step 1 – Choosing the words

Each table group defines the six more essential words related to climate change. These are written in capital letters in post-its.

🕐 5 minutes

Each group posts their words on the blank wall, one word at a time per group. Everybody sees the words.

A discussion is mediated by the educator following these guidelines:

- repeated words are posted together on the board/wall,
- organise the words in groups by similar themes or topics,

The words are removed from the wall and randomly distributed among all participants.

🕐 15 minutes

### Step 2 – Hunting the words

Each participant has a word (on a post-it) and has to hunt a connected or related image. They can go outdoors, or stay indoors. The image should be retrieved (like a photo), not made (like an illustration). If they take a photo, they send the picture to the educator who will print it (if using a wall) or upload it into a virtual board (Miro or similar).

🕐 20 minutes.

### Step 3 – Doing a puzzle

Photos and words are presented. Participants arrange them on the wall or digital board and explain why that image works with that word, the difficulties, etc.

The photos are numbered.

🕐 20 minutes. ⓘ

ⓘ This is a good moment to interrupt the activity for a break if needed.

### Step 4 – Creating a story

Each group creates a story that uses 6 to 10 images, using the numbers to identify the pictures.

They write the story on a paper or computer.

🕐 30 minutes.

### Step 5 – Sharing the Climate Change Stories

Each group presents their stories, rearranging the images accordingly.

🕐 30 minutes

### Step 6 - Feedback

The participants share their feedback and feelings regarding the experience.

The educator guides the discussion. Here are some suggestions what the educator can ask participants (TIP: Adjust the number and difficulty of questions based on age and abilities of participants):

How did you find the process to find the words chosen that represent climate change?

Was it difficult to choose/ create the image?

How was the story making activity?

What were the main difficulties of the storytelling process?

In your opinion what was the most fun part of this activity?

Was it hard to negotiate? Etc.

🕐 20 minutes

## Activity Sheet 7: Debate teams

Critical thinking, persuasion, and dialogue 100-120 minutes

8-28 participants 14-18 years class divided in 2 teams

| | |
|---|---|
| **Educator** | **At the start of the session**, the educator creates two groups/teams. **During the session**, the role of the educator is to help select the topic, keep the time during the debates and judge their performance. |
| **Goals** | The goal is to choose climate change topics and split into teams. Teams work together to **craft arguments to persuade the audience** to bend their opinion towards or against a particular topic. Teams then debate each other, following a cordial and responsive debate structure. |
| **Climate Literacy Goals** | The debate is a poor device to learn and scrutinize information, when compared to **Activity 1**. Despite this, it is an omnipresent figure in democracies - learning it **helps individuals be more critical and analytical with the information they receive**. It teaches students to search and collect information that supports one view, and that rebuts its opposite. It also sets teams that support the speakers and the speeches obey a canon. Good preparation requires one team to really understand the point of view of the opposing team. And experience this helps all **understand that politicized messages are group efforts**, they are rehearsed and not organic, they are combative by design. |
| **Competences** | • Literacy<br>• Cultural awareness and expression<br>• Interpersonal skills, and the ability to adopt new competences<br>• Active citizenship |
| **Subjects** | Science, civic education. |
| **Materials** | Mobile phones, computers, paper, pens and pencils. |
| **Methods** | Brainstorming, debate, group work. |
| **Sources** | Any that the pupils desire. |

## Activity 7: Debate teams 🕐 100-120 minutes

### Step 1 – Scouting opinions ➲

The educator can start by scouting the opinions of participants regarding climate change topics. Each participant declares a topic they are passionate about in relation to climate change. The educator invites everyone to participate and share, and ensures all opinions are equally accepted.

While the participants speak, the educator lists the topics on a board.

If necessary, after listing the opinions shared by participants, the educator lists other popular climate change opinions, either for or against climate action. The educator may point out to those which are more prevalent in social or legacy media.

Examples of opinions in **Annex 7.1.**

🕐 30 minutes.

➲ This activity greatly connects with **Activity 1**, please refer to it for some tips and relevant approaches, e.g. how to create guidelines for respectful discussion.

### Step 2 – Allotting topics and positions

The educator will create two groups and select a topic. ⓘ

Topics are types of declarations that force a commitment to either be for or against it. ➲

Examples of positions in **Annex 7.2.**

🕐 5 minutes

ⓘ For a continued activity across time, various groups of 6 can be formed, with a topic being allotted to each pair of groups.

➲ Declarations created as a part of the **"Become a volunteer"** exercise in **Activity 8** can be used.

### Step 3 – Research and team strategy

The groups research the assigned topic to find arguments and facts that can support both the Pro or the Con positions on the topic.

Then, by chance (coinflip or other), one group will be set on the Pro position and the other on the Con position regarding the topic.

Groups decide on a strategy on how to persuade the other group that their position is the right one, while orderly refuting the other side's position. Debate is a clash of ideas that respects the opposition. Each group also selects a team leader and two speakers. The remaining participants act as team advisors, taking notes and advising arguments. During **Step 4**, not speaking members of each team closely follow the opponent's speeches and try to find facts/data in their research that their team members who will speak later can use to react/support their point of view.

🕐 30 minutes

### Step 4 – Debating

The two groups debate the topic for 30 minutes. The educator acts as a timekeeper and judge, and the debate session respects the following structure:

1. Leader of the Pro team (3 minutes)
2. Leader of the Con team (3 minutes)

3. 1st Speaker of the Pro team (3 minutes)
4. 1st Speaker of the Con team (3 minutes)
5. Pause: Judge/Educator takes notes (2 minutes)
6. 2nd Speaker of the Pro team (3 minutes)
7. 2nd Speaker of the Con team (3 minutes)
8. Pause: Judge / Educator takes notes (2 minutes)

Position of the teams changes for final arguments. Each team properly concludes the best arguments of the opposing team so far, and the best criticism of their own previous speeches.

9. Conclusions of the Pro argument by the team Leader (3 minutes)
10. Conclusions of the Con argument by the team Leader (3 minutes)

The Judge has a 10-minute break to decide the formal evaluation of the teams. The assessment can resort to the following grid, giving 1 to 5 points per speech to the following topics:

- Content, argument and counter-argument logic
- Style of the speech, politeness

(optional) More advanced groups can also assess the speeches considering the following criteria:

- Leaders present the topic, explore their primary thesis and list auxiliary topics that Speakers will explore in depth.
- 1st Speakers identify errors in the opposing Leader's speech and present their own auxiliary topics
- 2nd Speakers identify errors in the opposing 1st Speaker's speech and present their own auxiliary topics
- In debate, at least 2 members per team speak at least once each. Every time they speak, they must react to what was previously stated.
- Closing arguments by Leaders must respond to criticism by the opposing team to their arguments and remind the jury of the errors in the opposing team's speeches. ⓘ

ⓘ There could be rewards for politeness to encourage respectful discussion of participants.

🕐 28-38 minutes

## Step 5 – Stepping out of the role

To reflect, educators should use a short activity to summarise the discussed topic, e.g. a one-word brainstorming.

Also, the debate structure may raise conflict between the opposing teams. To prevent participants from leaving the room with oppositional feelings, the educator should close the session by selecting and using one of the Ice-Breaking activities proposed in the Introduction to these methods.

🕐 5-10 minutes

## Activity Sheet 8: Climate change captured in time

Visual literacy, scavenger hunt and storytelling 🕐 60-220 minutes (depends on partial selection or integral application)

10-30 participants 13 years and above

**Educator**

**Prior to the session**, the role of educators is to carefully consider what activities to choose and to prepare the materials mentioned below that are needed for them. **During the session**, the role of educators is to facilitate the participants' activities.

**Goals**

Participants reflect on the value of time in connection with the topic of climate change. Relation between the objectives of the Activity and the exercises proposed according to the ERR model (see **Introduction**):

- **to build** a relationship with a lived space.
  - E – Dyad "My place"
  - R – Video and worksheet „On time and water"
  - R – Imagining "My place in the future"
- **to link** fossil fuel consumption and environmental change.
  - E – Brainstorming "Climate change in pictures"
  - R – Worksheet "Show your stripes" + Causas das alterações climáticas
  - R – Role play "Become a volunteer"
- **to experience** good practices for the environment done by NGOs and individuals.
  - E – Brainstorming "option A",
  - R – Ficha de trabalho "Mostra as tuas riscas" + Causes of climate change
  - R – Graphic Harvesting

**Climate Literacy Goals**

This activity is designed to make participants conscious of the complexity of climate change and encourage them to **think about climate change from various perspectives, globally as well as historically**. The activity aims to **strengthen their relationship with land**, imagine a sustainable future and learn about possible actions to empower participants.

**Competences**

- Literacy
- Cultural awareness and expression
- Interpersonal skills, and the ability to adopt new competences
- Active citizenship

**Subjects**

Geography (look at multiple places in the world and how and why they differ from each other), History (observe changes over time, other points of view, and select essential historical information), English (phrases on the topic of Climate change).

**Materials**

Video, *flipchart*/board etc., markers, worksheets (see **Annexes 8.1 to 8.8**).

**Methods**

Dyad, Brainstorming, Free writing, Double entry notebook, Video, Graphs, Comparison, Group work, Role play.

**Sources**

- Claudia Bernardi and Eric Vanhaute, A global history of humanity, 2020, CISP, ISBN 978-88-99592-04-2

Recommended sources:

- On time and water, Andri Snær Magnason. TedTalk. **https://www.ted.com/talks/andri_snaer_magnason_on_time_and_water**
- Showyourstripes. Ed Hawkins. University of Reading. 2022 **https://showyourstripes.info/s/globe**
- Climate change migration video **https://www.ted.com/talks/carol_farbotko_and_ingrid_boas_where_will_you_be_able_to_live_in_20_years/transcript?language=cs**
- Carbon we release video **https://www.ted.com/talks/kristen_bell_giant_ant_where_does_all_the_carbon_we_release_go?language=cs&subtitle=cs**
- How to deal with climate change video **https://www.ted.com/talks/vera_songwe_the_african_swamp_protecting_earth_s_environment/transcript?language=cs**

## Activity 8: Climate change captured in time 🕐 140 minutes

### How to work with the lesson

This lesson is built upon the ERR model (details in the **Introduction**). If an educator wants to follow the whole lesson and its goal – they should go through all the included activities (240 min). If educators want to shorten the lesson (60 minutes minimum) or to focus on some specific objective, specific activities can be chosen (as in the examples from the table below). In any case, the lesson should include at least one activity from each part of the ERR model. The reflection should always target the specific objectives of the lesson. ⓘ

ⓘ We invite the use of the **Graphic Harvesting** method (see **Introduction**) throughout the activity for a visual record.

### Evocation

### Exercise 1: Dyad "My place"

Educator uses the dyad method and open the topic with the question: "What do you wonder or appreciate about the place where you live?" (in relation to the environment).

Educator invites participants to divide into pairs. The "sound signal" starts a time (2 minutes) for the first speaker to say what they want to say about the topic. No one interferes in this monologue in any way, including for the purpose of clarification, they just listen to the speaker's flow of thoughts. After the first person's monologue is ended by the sound signal, the task of the second person of the pair is to explain in their own words the most important information that the first person talked about. Then the dyad roles are reversed and the person who listened in the first round will speak in the second round (for more details about the method please see the **Introduction**).

After the conversation, in pairs, the educator asks participants the following questions to summarise the topic:

- What surprised you the most?
- What did you already know?
- What were the ideas, thoughts you shared with your speaking partner?
- What were the main differences?

🕐 15 minutes

### Exercise 2: Brainstorming "Climate change in pictures"

Educator works with the whole class, asking participants about ideas related to the presented picture ✉. All ideas are collected and written on the board so everyone can see them. Educator does not comment on them. Every idea is considered valuable and relevant (for more details about the method please see the Introduction). It is also possible to use the graph of the whole Globe, continent, or specific country.

✉ This activity offers two pictures/graphs in **Annex 8.1**, but the educator/participants can use their own graph as well.

🕐 15 minutes

## Realisation of meaning

### Exercise 3: Video and worksheet "On time and water"

Educator plays the video "*About time and water*" (3:22 min) to participants as a basis for working with the topic of climate change and time. ⓘ

- **https://www.ted.com/talks/andri_snaer_magnason_on_time_and_water/transcript** 🌍

To reflect on the video, participants fill out a worksheet (**Annex 8.2**). Educator can give them a time limit of 15 minutes. The worksheet uses critical thinking methods such as **Free writing** **or** **Double entry journal**

- Double entry journal – each participant first divides a sheet of paper into two columns, then reads the assigned text. At their discretion, participants choose sentences that caught their attention, write them down on the prepared paper and add their own reactions or comments to it. ➲
- Free writing – participants write down on paper everything that comes to their mind about a certain topic/subject without thinking about sentence structure, grammar or spelling. Participants should write coherent text, not just words or phrases.

After the individual work, participants share important information in groups (of 4). Each group then presents important information to the whole class.

🕐 35 minutes

ⓘ As a part of an **English language lesson**, educator can use a transcript, clarify new words, analyse sentence structure, etc.

➲ for more details about the methods please see the **Introduction**.

### Exercise 4: Worksheet "Show your stripes" ⓘ ⓘ

In this activity, participants follow up on the topic of climate change over time. They discuss the idea of "handshake between generations" ⓘ within the context of their own country or family. Educator creates groups of 4 participants. Educator can print a worksheet (**Annex 8.3**) for participants with a graph of the specific country (for example, Portugal) or let participants open the page: **https://showyourstripes.info** 🌍. If the educator knows in advance that there will be a lot of participants from different countries of origin, or they have ancestors from other countries, it is possible to use the global stripes graph.

Participants work on following questions:

1. What does the handshake of the generations mean in your group? In the picture, highlight a year when your oldest and youngest relatives were born (participants will work on other tasks using this defined time period)
2. Look at how the colours of stripes have changed over this period. What could have changed in the environment (of your place/country) during this time?
3. What environmental changes could the oldest people you know observe over time? What can be new for them nowadays?
4. How would you describe the change of temperatures in your country compared to the globe, oceans, other countries?
5. What is currently helping and hindering climate change?

ⓘ Prior to a lesson, participants should find out when their grandparents and other relatives were born, if and how the environment in which they live has changed, etc.

ⓘ Show your stripes can be complemented in **Geography** sessions with an exploration of the question: "If CO2 is a global problem, why is one country (or part of a country) warming differently/faster/slower than another?"

ⓘ Intergenerational component could improve if there is indication to invite grandparents or other elders

🕐 30-40 minutes

### Exercise 5: Causes of climate change

After working with the stripe graph, it is advisable to find out the causes of these changes. You can use some of the following activities for this:

Option A – Chart comparison “Global consumption”

Participants are in groups; they share their thoughts on the following question: *What is the connection between the stripe graph we saw and the "global fossil fuel consumption "* graph (**Annex 8.4**). ⓘ

Educator can also ask a question “What do we need fossil fuels / energy for?”

🕐 5-15 minutes

Option B – worksheet "Are companies impacting ecosystems?"

Participants individually fill out the worksheet "Are companies impacting ecosystems?" (**Annex 8.5**). Subsequently, they share their findings with their classmates.

🕐 15 - 25 minutes

ⓘ Participants can prepare for the activity in advance. For example, they can find out when their grandparents and other relatives were born and whether the environment around them has changed in any way, etc. Depending on how the educator intends to work with the graph, we will specify the assignment for the participants - if the participants find out the previously given information in their family, it should be close living relatives, if the educator wants to focus on a long period of time, the participants can choose any relative that they know their year of birth.

### Reflection

The activities in this section offer opportunities to think about possible solutions to the problem. Give participants enough time and space to share their emotions, opinions, values and perspectives (other tools such as the P4C method can also be used for this).

### Exercise 6: Imagining “My place in the future”

Let's go back to the opening activity **Dyad “My place”**, where participants shared what they value about the places they live. Educator gives participants a minute to imagine *"What do I want the place I live to look like in the future?"*. Educator can support the imagination asking following questions:

- What would I like to smell in the air?
- What would I like to hear?
- What should grow around me?
- What animals should I meet?
- What should the surrounding buildings look like?
- How should people treat each other? Treat animals? Treat nature?

After that, participants (either in pairs or in groups of 4) share their ideas and write down details about how the place where they live should look in the future. Educator encourages participants to think about different aspects (environmental, social, political, economic...). Each group presents their ideas to the whole class and all the ideas about what the ideal place should look like are written down. ✉

🕐 15-25 minutes

✉ Some participants may find it difficult to process all aspects of society. For example, educator can have them complete the worksheet: "What makes us happy" (**Annex 8.6**) or have them read the employment code of an inspiring company, etc.

## Exercise 7: Role play "Become a volunteer" ⓘ

During this activity, participants can learn about organisations and tools that can help them achieve their vision. Participants are divided into groups (3-4 each). Each group is given one organisation from the worksheet (**Annex 8.7**). dedicated to the fight against climate change. Each group prepares a presentation of the given organisation (participants can use the provided texts or find specific information on the Internet). The groups imagine that they want to recruit new members for their chosen organisation and to familiarise them with their activities. The groups then present their organisation to the rest of the class. Each participant then will individually consider whether the given organisation can help to fulfil their idea of what the environment should look like in the future. If so, they "subscribe" to the given group's volunteer activities.

The activity can be expanded with the worksheet "Paid and unpaid actions" (**Annex 8.8**), where participants can learn more about "unpaid work". ➲

🕐 30-45 minutes

ⓘ Participants should be able to connect the role play with the knowledge gained within previous activities – they can highlight how the NGO is helping to reduce usage of fossil fuels, how they are following the data presented by scientists etc.

➲ As a supplement to this activity, **Icebreaker: Create a slogan** described in the **Introduction** can be used.

## Exercise 8: Graphic harvesting

Participants reflect on what they have taken from the previous activities. Educator asks them to answer the question "What insights/thoughts/questions do I take away about climate change and time?" using the graphic harvesting method. This method represents a visual summary of the information learnt and combines drawing and writing about it on a board, large paper or flipchart. ➲


➲ for more details about this method please see the **Introduction**.

The educator can ask participants to share any idea, that they have after the lesson:

- What are the links between climate change and time for you?
- How do you feel about climate change after the lesson?
- What ideas about climate change do you have now?
- What can be done to deal with climate change issues?

Duration: 15-20 minutes

# Annexes

## Annex 1.1: Choosing a stimulus

**Philosophy for Communities** is a great tool to encourage and develop critical thinking in the classroom. There is a multitude of reasons to use this methodology in addition to its applicability to the achievement of various goals. In encouraging creative inquiry, **Philosophy for Communities** has the opportunity to go in multiple directions and elaborate on the topics that students deem critical rather than rely on the topic chosen by the educator. The following example is a potential situation:

> *You want your class to have a discussion around climate change and choose a stimulus that you think will inspire the group. Through the process of creating philosophical questions, the group chooses a different topic when deciding on the question for inquiry. This event does not mean that you have failed but is an example of the ways in which you can witness critical thinking skills evolving within the group and follow the direction that they are leading the discussion to. Is there a greater experience for a teacher/facilitator?*

Regardless of what happens throughout the discussion, choosing the initial stimulus is a key factor for the enquiry. Through careful selection of the stimulus, the educator has the opportunity to influence the topics that will be discussed by the group and diminish the chances that they choose to talk about something different.

### What is the prompt / stimulus?

The greatest influence an individual has on the content of the enquiry is choosing the stimulus. The stimulus is the starting point for the enquiry. With the stimulus, you can try to draw the attention of your group to different topics, issues, questions, without directly specifying them. This is its role in the process: to raise themes and provoke the formulation of philosophical questions.

### What constitutes a good stimulus?

Are there 'unsuitable stimuli' at all? This could easily be a question to discuss within the frame of an enquiry with fellow P4C trainers or colleagues. Whether a stimulus is good or less so depends on the goals as well as the educator. A stimulus is good if it fits the agenda and the desired learning outcome. In general, a prompt is good if it:

- has a clear agenda or theme
- is appropriate for the group composition and does not offend any ethnic or religious group or minority, etc.
- fits the age group of group members
- catches the attention of every group member
- gives an opportunity to everyone in the group to express their own opinion (even if it radically differs from that of the rest of the group)
- speaks for itself, in other words, if it does not require an interpretation

- focuses on the specific realities the group encounters on a daily basis
- provides a positive, solution-oriented approach to the future (especially in relation to climate change).

## What type of prompt / stimulus can you use?

Only imagination can limit what type of stimulus is used in the P4C process. At the beginning it is best to start with simple prompts. Once students are used to framing philosophical questions, an inquiry can be set off by almost anything.

When choosing a stimulus, always bear in mind the time you have to present it for the group. Even though you may have to shorten it (e.g., if it is from a novel or a movie), always respect the original author. You can use a citation from a literary work—in some cases giving the context might be necessary ("This poem was written in a concentration camp during WWII"). You can use your own photos, or even make photos specifically to serve as a stimulus for an inquiry. If you use newspaper or magazine articles or research data, always credit the source.

## Let's see some examples of possible stimuli:

- songs – lyrics can be printed and handed out
  - John Lennon, *Imagine*
  - Louis Armstrong, *What a Wonderful World*
- rap – may work well with teenagers or young adults
  - Imagine Dragons, *Radioactive*
  - Will.I.AM, *SOS*
- video clips – music clips, TV adverts, movie teasers, etc.
  - vídeo *About time and water*, **https://www.ted.com/talks/andri_snaer_magnason_on_time_and_water/transcript**
- short animations – single stories with a clear message work with any age group
- stories – fiction or personal, written or told
- picture books – can be projected
- cartoons – cartoons are almost always controversial
  - Bill Kroyer, *Ferngully* (1992)
  - Hayao Miyazaki, *Mononoke Hime* (1997)
- comic strips – a quick and fun way to engage the group with a story
  - Rohan, Green Humour **https://www.greenhumour.com/**
  - Or pic from this database: **https://www.ecocomicsdatabase.com/**
- films – fiction or documentary
  - Richard Fleischer, *Soylent Green* (1973)
  - Roland Emmerich, *The Day After Tomorrow* (2004)
- art – paintings, sculptures, etc.
  - Katsushika Hokusai, *The Great Wave off Kanagawa* (1831)
  - Enthroned Zeus statue at the Getty Museum (c. 100 BC)
- objects – 3D beats 2D
- dialogues – can be dramatized with group members
- newspaper or magazine articles – mark your source
- photos – a picture is worth a thousand words; landscape pictures (both local and exotic) are great stimuli

- happenings – school events, visits, school trips, etc.
- dramatic scenes – can be performed by group members or actors
- data – pure facts can be shocking and thought-provoking
- poems – interpretations can often be diverse
- graffiti – the genre itself is provocative just like its message in most cases
- video blogs
- tweets – a short way to bring up an issue
- activities
- other resources in this toolkit
    - Glossary in **Annex 2.6**
    - "Global Consumption" in **Annex 8.4**

Remember, these are only examples. Use your creativity when choosing a prompt.

## How to choose and use a stimulus?

When choosing a stimulus, bear in mind some advice concerning a successful enquiry which, in turn, leads to the desired learning outcome:

- Define the topic, or the theme you want your group to discuss clearly for yourself.
- Know the context of your stimulus.
- Adjust the stimulus to your group (age, language skills, ethnic, racial, religious diversity, when adequate, etc.).
- When you feel stuck in finding the proper stimulus for a specific topic, ask for help from colleagues. You can rely on their experience.
- Use your imagination and creativity. Anything can serve as a prompt; always keep your eyes peeled.
- Never let the group know your personal view or opinion on the stimulus. This would affect their thinking; your group would follow your lead. It is probably better to avoid using stimuli that have already been discussed in a different school context (in a different lesson).

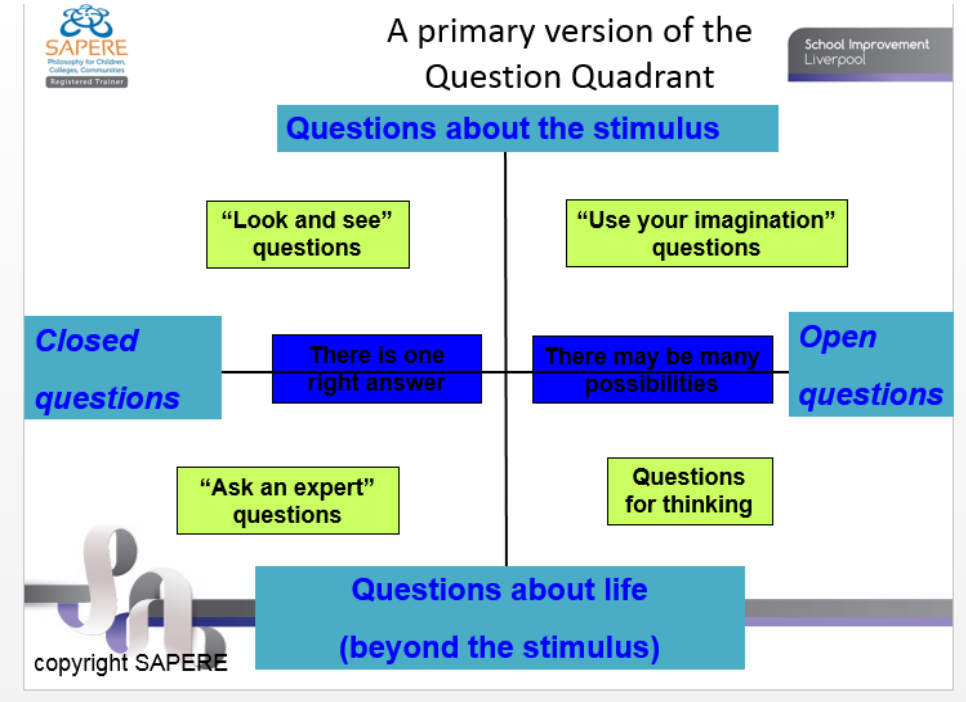
The best advice you can get: always enjoy the process.

## Annex 1.2: Open questions

### What is an open question?

- Open questions are about abstracts, concepts and/or values, therefore, there is no right or wrong answer.
- Unlike close-ended questions, open questions cannot be answered by easy “yes”/“no” or obvious answers.
- They prompt a longer conversation to discover a unique perspective of participants.
- Often, open questions result in a clash of opinions or a heated debate. However, it is important to keep the discussion respectful and safe for all participants.

The question quadrant might help in categorizing questions:




### Why are open questions so important?

- They require a person to pause, think, and reflect and therefore, develop critical thinking and other soft skills.
- Answers include personal feelings, opinions, or ideas about a subject.
- Open questions are important also in conversation, they keep it flowing in an open and engaging way.

### How to form an open question

- Open questions usually start with “Why?” “How?” “What?” or “Can you describe, tell me about…”
- Open questions should be based on a genuine interest in participants and their perspective, thoughts and feelings regarding a chosen topic. When forming the question, it is good to use words that reflect this approach such as “to think”, “to like” or ‘to want’, ‘to believe’, and ‘to feel’.

- Not only are these questions designed to elicit a longer and more detailed response, but they, likewise, ask the respondent to take extra time to consider what is being asked of them and what they should say.
- Keep in mind that wording is very important. Open-ended questions can result in long answers. If you would like to keep them brief or relevant, be specific when asking the question.

- Source: **https://files.nc.gov/ncdhhs/documents/files/dss/training/Open-Ended-Questions-.pdf** 🕮

## Annex 2.1: Ideas about development

Which of these ideas (if any) is most closely associated with your understanding of development?

| | |
|---|---|
| **Abundance of material wealth** | **High levels of literacy** |
| **Availability of technology** | **Access to healthcare** |

✂ **cut and distribute**

- Source: Vanessa Andreotti, Lynn Mario T.M. de Souza (2008): Learning to Read the World Through Other Eyes. Global Education, Derby, UK (p. 7) **https://decolonialfuturesnet.files.wordpress.com/2018/04/toe.pdf** 🕮

# Annex 2.2: Perspectives and impacts of development

## !!! Annex 2.2a: Different perspectives of development

**Consider how people from other cultures see development.**

| |
|---|
| Inca progress or development is conceived in a collective way and in the context of relationship with the earth. Everything more that I want for me, it should be fair that everyone else should have it also. But if having that means taking from others or from the environment in ways that are unfair, then I should not want it. A developed society gives everybody enough and caters for everybody's needs.<br><br>Juan Carlos Machicado (Cusco, Peru) |
| [Western] sustainability goals revolve around the search for strategies by which we can continue to take from the Earth into the future. When these definitions were presented to traditional [indigenous] elders they observed "it sounds to me like they just want to keep taking" when the question we should be asking is "what can we give?" […] One of the hallmarks of the indigenous worldview is that humans and nature are linked in reciprocity. As the Earth sustains us, we must sustain the Earth. A fundamental piece of indigenous environmental philosophy asks in return for the gifts of the Earth, for all that we have taken – what shall we give in return?<br><br>Robin Wall Kimmerer (Syracuse, USA)<br><br>© **Harmony with Nature** |
| We are in a climate crisis, but companies are still digging for more fossil fuels and governments are not making decisions to shift to clean energy. Maybe they call them developed countries, but I call them overdeveloped countries. They get more than what they need to survive in a good way, yet they are not acting fast enough to ensure we can also survive.<br><br>Hindou Oumarou Ibrahim (Chad)<br><br>© **Grandmothers are our weather app': new maps and local knowledge power Chad's climate fightback** |
| When people speak of development, it is really important to ask: "Development by whom, for whom, and for what?" […] It all comes down to how you are treating the Earth, and how you are treating the people. [A]s indigenous peoples we all share a deep relationship with nature. For me, nature is my source of identity; it's my culture, my tradition, my language and my livelihood. […] So yes, for us indigenous peoples, it is the dominant world view, with its focus on profit and gain and development [which is the biggest obstacle].<br><br>Archana Soreng (India) |
| Development is about the quality and integrity of our relationships of |

reciprocity. It is also about the connections we have to ourselves and the spirit world. We are conscious that the world does not revolve around us. The Western idea of development does not make sense.

Mereana Taki (Rotorua Aotearoa, New Zealand)

Development is a complex thing. I feel I am part of a wider system of relations and that the modern notion of progress is very problematic, but I also do not think I would prefer to live without electricity, hot water, books, violins, heat pumps, disposable nappies or cars.

Bronwyn Thurlow (Otautahi Aotearoa, New Zealand)

The development they want us to have means detachment from our community. It means living like the people in the city: isolated from other people, isolated from earth, alone in the world. Development in my language means connection to one's community, to the land and to Ñande Ru (force of creation or God).

Wera Mirim (Santa Catarina, Brazil)

A developed society is a whole society. The question we ask for checking these connections is simple: is what we are doing costing other living beings life or not? If it is then we are going on the wrong trail. If man continues to destroy at the rate we are destroying today there won't be much left for our children's children.

Bob Randall (Mutitjulu, Australia)

Juan Carlos Machicado was born in Cusco, Peru. He has spent his entire life promoting the culture and wisdom of the Inca. He taught at the University of Nottingham in the United Kingdom (1989–1993) and lived in Santa Fe (1993–1998) where he carried out anthropological research on the Pueblo, Navajo, Hopi, and Wichol peoples of the American Southwest. He has published a book and produced a TV documentary, both of which won international awards in history and philosophy. Currently, Juan Carlos is living according to his deepest passions: lecturing on pre-Inca and Inca culture, as well as guiding private groups to all of Peru's exquisite ancient sites. He has been awarded as the best professional tour guide in Cusco and Machu Picchu for more than five consecutive years, in recognition for his contributions to a new way of seeing Inca and pre-Inca history. © **Juan Carlos Machicado Figueroa** 🌎, **Juan Carlos Machicado- Top rated tour guide in Peru** 🌎

Uncle Bob (Randall) was one of the most important Aboriginal elders in Australia because of his activism in exposing the "Stolen Generation". The

“Stolen Generation” was named after the Australian government’s practice of taking mixed-race babies from their mothers to be raised as “white” in missionary schools, thousands of miles from their homes. At the age of about 7, Bob was taken away from his home and, like thousands of other Aboriginal children, grew up alone, away from his family, never to see his mother again. Throughout his life, Uncle Bob has worked as an educator and leader for the equal rights of all living beings, land rights and responsibility to the environment, indigenous cultural awareness and preservation, and community development. In the early 1970s, Uncle Bob gained widespread recognition for his song “My Brown Skin Baby, They Take `Im Away,” which eventually led the Australian government to stop taking children away from their families. It is Aboriginal custom not to look at images of the deceased, so there are none here. However, Uncle Bob gave his friend Daniel permission to use his image, voice and words after his death, and you can see them **here**. © **The Mother would hold you**, **Kanyini**

Robin Wall Kimmerer is a mother, a scientist, a decorated professor, and an enrolled member of the Citizen Potawatomi Nation. She is a Distinguished Teaching Professor of Environmental Biology and the founder and director of the Center for Native Peoples and the Environment. She is the author of numerous scientific papers on plant ecology, bryophyte ecology, traditional knowledge and restoration ecology. She is also the author of the bestseller Braiding Sweetgrass and the awarded book Gathering Moss. Robin tours widely, has been featured at numerous events and in 2015 addressed the United Nations General Assembly on the topic of “Healing Our Relationship with Nature”. © **Robin Wall Kimmerer**

Hindou Oumarou Ibrahim is a member of the Mbororo pastoralist community in Chad. She began advocating for indigenous rights and environmental protection at the age of 16. She founded the Association for Indigenous Women and Peoples of Chad to introduce new income-generating activities for women and collaborative tools. Her vision is to increase support for both traditional knowledge and science to build resilience to climate change, especially for rural communities. Her work with indigenous communities at the local and global levels has received widespread recognition and support, including many international prizes and awards. She has been recognised by the BBC as one of the world’s a top 100 women leaders and by TIME as one of the Women Leaders in Climate Change. © **Local Communities and Indigenous Peoples Platform Web Portal - Africa**

Archana Soreng, 26, is a leading Indian youth climate activist and UN adviser. Hailing from an Adivasi background among the Kharia people in the state of Odisha, she is descended from indigenous healers and community leaders. Her grandfather was a pioneer in community forest protection, and both her parents were active in the struggle for her people's rights. Soreng is currently Research Officer at the NGO Vasundhara Odisha, which works on natural resource governance, conservation and sustainable livelihoods. She is one of seven members of the United Nations Youth Advisory Group on Climate Change.© **Archana Soreng: Our voice matters**

In *Learning to Read the World Through Other Eyes* by Vanessa Andreotti and Lynn Mario T.M. de Souza you can find the statements and pictures of Mereana Taki, Bronwyn Thurlow, Wera Mirim and Bob Randall, in page 11.

- **https://decolonialfuturesnet.files.wordpress.com/2018/04/toe.pdf**

## Annex 2.2b: Impact of development on indigenous peoples

### Why can the mainstream way of development in the countries of the Global North be seen as a negative thing by indigenous peoples?

European cultures and understandings of development are based on a separation between humans and nature and between Europeans and non-Europeans. This approach is a foundational principle of colonialism brought by European countries to many countries around the world, from Africa to the Americas, Asia and Australia. Colonialism as an ideology sought to enrich European countries at the expense of all others, while extracting resources from foreign lands. Over the centuries, dehumanising tactics were employed to commodify colonised peoples around the world. The enslavement, subjugation, murder, and other practices that followed in the name of development changed the world so much that some indigenous peoples have called it an apocalypse of which indigenous people today are survivors (1). Even though it may be hard for most of us to accept, the impact of colonialism on indigenous peoples, as committed by colonial countries, meets the United Nations definition of "genocide" (2). It is a genocide that few are aware of, very few talk about, not much is done about, and for which no one has ever been held accountable.

### What are the practices of colonisation?

The key practice for resource exploitation is land dispossession. For example, indigenous peoples across the United States have lost nearly 99% of their historic land base over time. Furthermore, over 42% of the historic indigenous communities now have no federally or state-recognised lands, and the present-day lands that indigenous communities do still possess are on

average 2.6% of their estimated historic size. In terms of climate change, current lands of indigenous communities face more extreme heat and less precipitation, and are more exposed to wildfire hazard (3). One of the most widely used colonial practices was cultural assimilation or erasure in the form of boarding or residential schools, which prohibited any form of indigenous cultural practices, including the use of language. In Canada, for example, up to 150,000 indigenous children were separated from their families, often by force, and sent to government-funded, church-run schools with the aim of "killing the Indian in the child" and assimilating them into Canadian culture. Many were neglected, malnourished, physically and sexually abused and experimented on in the name of health care development. Thousands died, and many never returned to their families; their fates remain undocumented.

Unfortunately, colonialism is not just a history, it is an ongoing process. For example, the colonial legacy lives on in all aspects of Canadian culture, as discriminatory and even racist attitudes towards indigenous peoples are still embedded in laws, judicial system, education practices, healthcare system, and others (4). The direct impacts of colonialism can still be seen in all aspects of indigenous peoples' lives. There are about 470 million indigenous peoples in the world, and they make up more than one-third of the world's 900 million extremely poor rural people. More than 86 percent of indigenous peoples work in the informal economy and are almost three times more likely to be living in extreme poverty. They are more likely to suffer from malnutrition and often lack adequate social protection and economic resources. The COVID-19 pandemic has disproportionately affected their lives, making them even more vulnerable to poverty, disease, and discrimination. Even in countries of the Global North, indigenous peoples consistently lag behind the non-indigenous populations on indicators of well-being. They live shorter lives, have poorer healthcare and education, and experience higher unemployment rates. The life expectancy of indigenous peoples is as much as 20 years lower than that of their non-indigenous counterparts (5). Indigenous peoples are also disproportionately affected by environmental pollution and climate change. For example, much of the infrastructure associated with pollution, such as mines, pipelines, or waste incinerators, is located on indigenous lands (6).

## Who are Indigenous Peoples?

Indigenous peoples are the keepers of unique cultures, traditions, languages, knowledge, religion, cosmology and symbolism. There are more than 476 million indigenous peoples in the world, spread across 90 countries, all geographical regions and representing 5,000 different cultures. Indigenous cultures are grounded in centuries/thousands of years of place-based practices of sustainable ecosystem stewardship and governance. These extensive, complex systems of knowledge are embedded in indigenous languages. The latter are central to the identity of indigenous peoples, the preservation of their cultures, worldviews and visions, and expressions of self-determination. Indigenous languages make up the majority of the world's 7,000 languages; however, it's estimated that one indigenous language dies every two weeks. Indigenous cultures across the world demand that people take responsibility for and care of the ecosystems around them. Indigenous peoples thrive by living in harmony with their surroundings, as nature

provides everything they need to live a good life. Nearly 70 million of them depend on forests for their livelihoods, and many more are farmers, hunter-gatherers or pastoralists (7). Research shows that although they inhabit only 25% of the Earth's surface, they manage over 80% of the world's biodiversity! Many scientific studies confirm that there are even more species of plants and animals in indigenous territories than in state-protected areas (8, 9). Additionally, indigenous communities are leaders in the fight against climate change. Their forestlands store at least one quarter of all above-ground tropical forest carbon – about 55 trillion tonnes. This is equivalent to four times the world's total carbon emissions in 2014, and since data is not available for all the lands managed by the indigenous communities around the world, the actual impact is far greater (7).

If you would like to learn more about indigenous peoples and how you can contribute to their protection, or find various resources about some of them, you can visit **Survival International** 🌍.

Tip: The educator can show to the participants the video **There you go!** 🌍 and discuss with them the different aspects of development

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## Annex 2.3: Aspects of the two different perspectives of development

| Analogy | Relationship to the Environment |
| --- | --- |
| Development as ecology – adaptation and survival in interdependent systems | Humans as part of nature in a relationship of reciprocity |
| Development as a ladder towards a fixed ideal of progress (e.g. technology, civilisation, etc.) | Humans outside nature in a relationship of dominance, control and exploitation |

✂ cut and distribute

- Source: Vanessa Andreotti, Lynn Mario T.M. de Souza (2008): Learning to Read the World Through Other Eyes. Global Education, Derby, UK (p. 7) **https://decolonialfuturesnet.files.wordpress.com/2018/04/toe.pdf** 🕮

# Annex 2.4: Effects and causes of climate change

## Annex 2.4a: Effects of Climate Change

| | |
|---|---|
| Hotter temperatures | As greenhouse gas concentrations rise, so does the global surface temperature. The last decade, 2011-2020, is the warmest on record. Since the 1980s, each decade has been warmer than the previous one. Nearly all land areas are seeing more hot days and heat waves. Higher temperatures increase heat-related illnesses and make working outdoors more difficult. Wildfires start more easily and spread more rapidly when conditions are hotter. Temperatures in the Arctic have warmed four times as fast as the global average. |
| More severe storms | Destructive storms have become more intense and more frequent in many regions. As temperatures rise, more moisture evaporates, which exacerbates extreme rainfall and flooding, causing more destructive storms. The frequency and extent of tropical storms is also affected by the warming ocean. Cyclones, hurricanes, and typhoons feed on warm waters at the ocean surface. Such storms often destroy homes and communities, causing deaths and huge economic losses. |
| Increased drought | Climate change is changing water availability, making it scarcer in more regions. Global warming exacerbates water shortages in already water-stressed regions and is leading to an increased risk of agricultural droughts affecting crops, and ecological droughts increasing the vulnerability of ecosystems. Droughts can also stir destructive sand and dust storms that can move billions of tons of sand across continents. Deserts are expanding, reducing land for growing food. Many people now face the threat of not having enough water on a regular basis. |
| A warming, rising ocean | The ocean soaks up most of the heat from global warming. The rate at which the ocean is warming strongly increased over the past two decades, across all depths of the ocean. As the ocean warms, its volume increases since water expands as it gets warmer. Melting ice sheets also cause sea levels to rise, threatening coastal and island communities. In addition, the ocean absorbs carbon dioxide, keeping it from the atmosphere. But more carbon dioxide makes the ocean more acidic, which endangers marine life and coral reefs. |
| Loss of species | Climate change poses risks to the survival of species on land and in the ocean. These risks increase as temperatures climb. Exacerbated by climate change, the world is losing species at a rate 1,000 times greater than at any other time in recorded human history. One million species are at risk of becoming extinct within the next few decades. Forest fires, extreme weather, and invasive pests and diseases are among many threats related to climate change. Some species will be able to relocate and survive, but others will not. |
| Not enough food | Changes in the climate and increases in extreme weather events are among the reasons behind a global rise in hunger and poor nutrition. Fisheries, crops, and livestock may be destroyed or become less productive. With the ocean becoming more acidic, marine resources that feed billions of people are at risk. Changes in snow and ice cover in many Arctic regions have disrupted food supplies from herding, hunting, and fishing. Heat stress can diminish water and |

| | |
|---|---|
| | grasslands for grazing, causing declining crop yields and affecting livestock. |
| More health risks | Climate change is the single biggest health threat facing humanity. Climate impacts are already harming health, through air pollution, disease, extreme weather events, forced displacement, pressures on mental health, and increased hunger and poor nutrition in places where people cannot grow or find sufficient food. Every year, environmental factors take the lives of around 13 million people. Changing weather patterns are expanding diseases, and extreme weather events increase deaths and make it difficult for health care systems to keep up. |
| Poverty and displacement | Climate change increases the factors that put and keep people in poverty. Floods may sweep away urban slums, destroying homes and livelihoods. Heat can make it difficult to work in outdoor jobs. Water scarcity may affect crops. Over the past decade (2010–2019), weather-related events displaced an estimated 23.1 million people on average each year, leaving many more vulnerable to poverty. Most refugees come from countries that are most vulnerable and least ready to adapt to the impacts of climate change. |

- Source: **Causes and Effects of Climate Change** (United Nations, 2023)

### Annex 2.4b: Causes of Climate Change

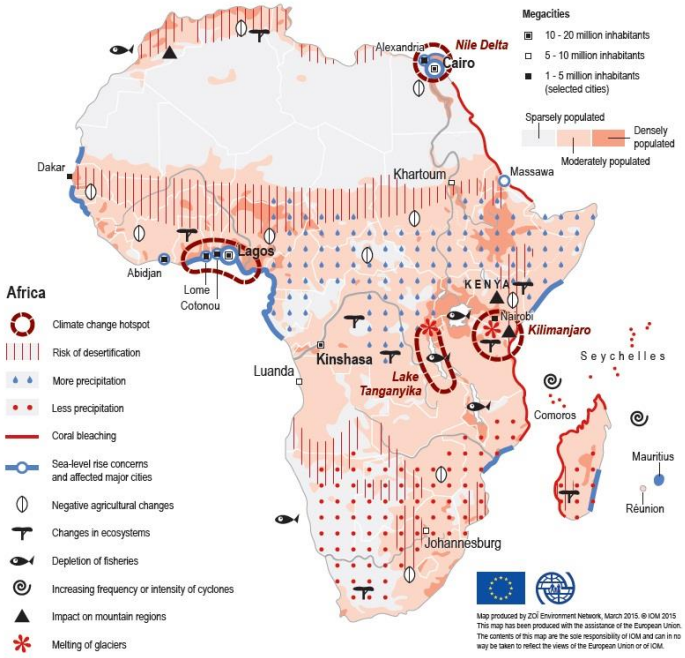
| | |
|---|---|
| Generating power | Generating electricity and heat by burning fossil fuels causes a large chunk of global emissions. Most electricity is still generated by burning coal, oil, or gas, which produces carbon dioxide and nitrous oxide – powerful greenhouse gases that blanket the Earth and trap the sun's heat. Globally, a bit more than a quarter of electricity comes from wind, solar and other renewable sources which, as opposed to fossil fuels, emit little to no greenhouse gases or pollutants into the air. |
| Manufacturing goods | Manufacturing and industry produce emissions, mostly from burning fossil fuels to produce energy for making things like cement, iron, steel, electronics, plastics, clothes, and other goods. Mining and other industrial processes also release gases, as does the construction industry. Machines used in the manufacturing process often run on coal, oil, or gas; and some materials, like plastics, are made from chemicals sourced from fossil fuels. The manufacturing industry is one of the largest contributors to greenhouse gas emissions worldwide. |
| Cutting down forests | Cutting down forests to create farms or pastures, or for other reasons, causes emissions, since trees, when they are cut, release the carbon they have been storing. Each year approximately 12 million hectares of forest are destroyed. Since forests absorb carbon dioxide, destroying them also limits nature's ability to keep emissions out of the atmosphere. Deforestation, together with agriculture and other land use changes, is responsible for roughly a quarter of global greenhouse gas emissions. |
| Using transportation | Most cars, trucks, ships, and planes run on fossil fuels. That makes transportation a major contributor of greenhouse gases, especially carbon-dioxide emissions. Road vehicles account for the largest part, due to the combustion of petroleum-based products, like gasoline, in internal combustion |

| | |
|---|---|
| | engines. But emissions from ships and planes continue to grow. Transport accounts for nearly one quarter of global energy-related carbon-dioxide emissions. And trends point to a significant increase in energy use for transport over the coming years. |
| Producing food | Producing food causes emissions of carbon dioxide, methane, and other greenhouse gases in various ways, including through deforestation and clearing of land for agriculture and grazing, digestion by cows and sheep, the production and use of fertilizers and manure for growing crops, and the use of energy to run farm equipment or fishing boats, usually with fossil fuels. All this makes food production a major contributor to climate change. And greenhouse gas emissions also come from packaging and distributing food. |
| Powering buildings | Globally, residential and commercial buildings consume over half of all electricity. As they continue to draw on coal, oil, and natural gas for heating and cooling, they emit significant quantities of greenhouse gas emissions. Growing energy demand for heating and cooling, with rising air-conditioner ownership, as well as increased electricity consumption for lighting, appliances, and connected devices, has contributed to a rise in energy-related carbon-dioxide emissions from buildings in recent years. |
| Consuming too much | Your home and use of power, how you move around, what you eat and how much you throw away all contribute to greenhouse gas emissions. So does the consumption of goods such as clothing, electronics, and plastics. A large chunk of global greenhouse gas emissions are linked to private households. Our lifestyles have a profound impact on our planet. The wealthiest bear the greatest responsibility: the richest 1 per cent of the global population combined account for more greenhouse gas emissions than the poorest 50 per cent. |

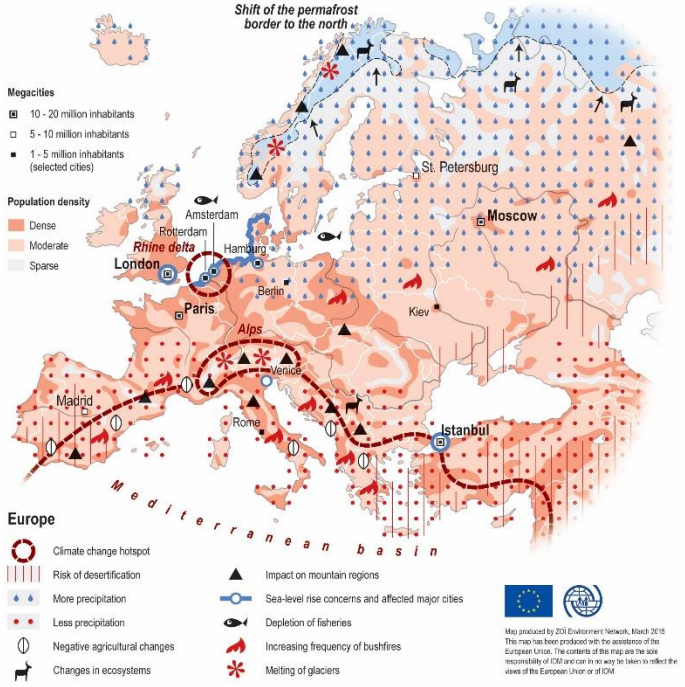
- Source: **Causes and Effects of Climate Change** (United Nations, 2023)

# Annex 2.5: Images with climate change hotspots

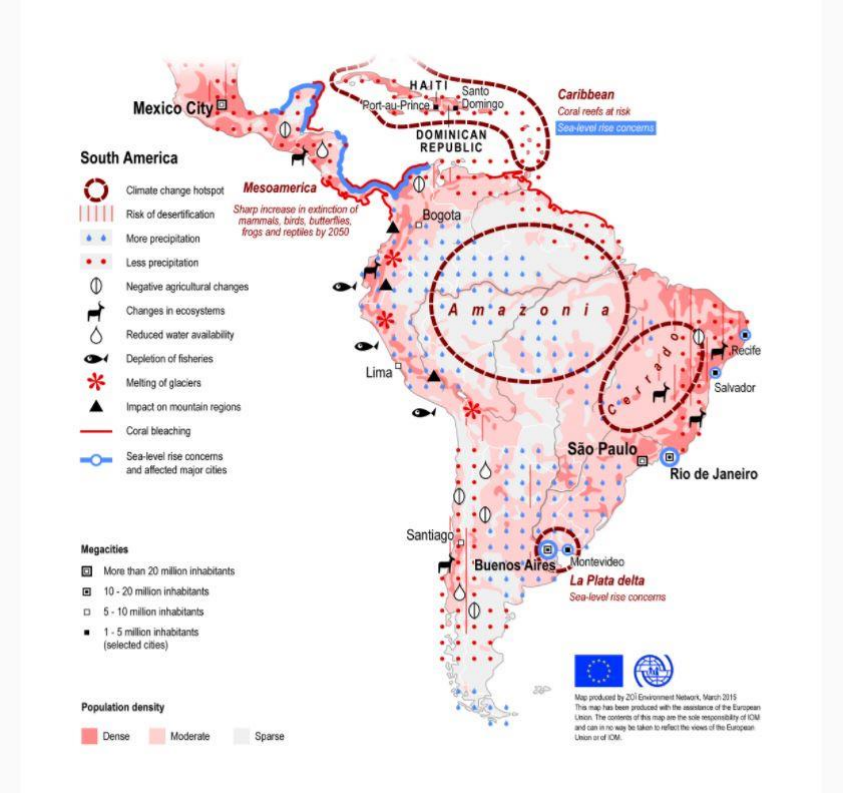
Africa



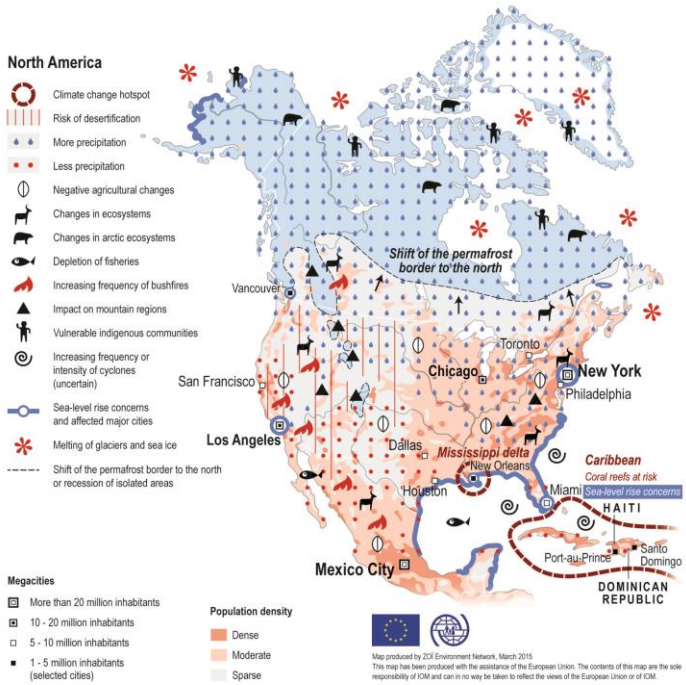

Europe



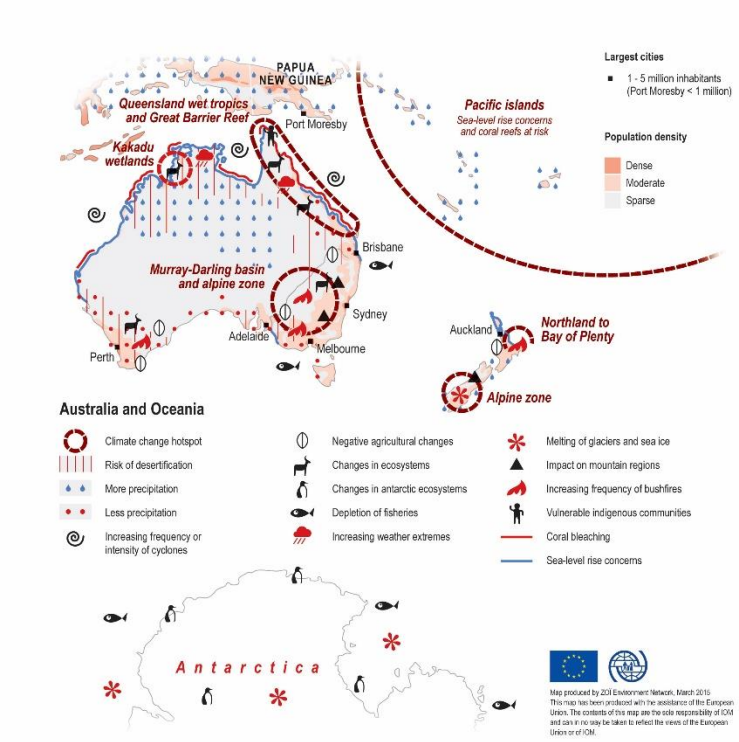

South America



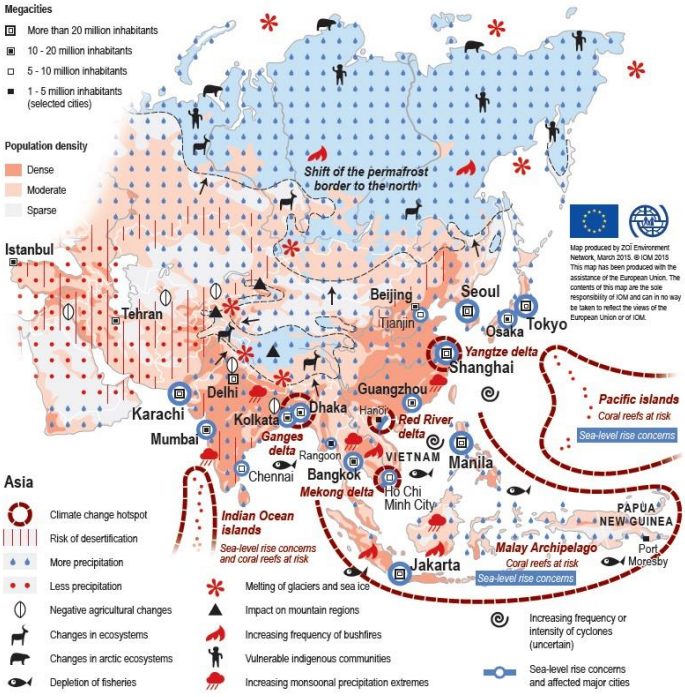

North America




Australia and Oceania




Asia




- Source: **Environmental Migration Portal** (IOM, 2023)

## Annex 2.6: Glossary of terms used in the legend

| | |
|---|---|
| CLIMATE CHANGE HOTSPOT | … national language translation |
| RISK OF DESERTIFICATION | … |
| MORE PRECIPITATION | … |
| LESS PRECIPITATION | |
| NEGATIVE AGRICULTURAL CHANGES | |
| CHANGES IN ECOSYSTEMS | |
| IMPACT ON MOUNTAIN REGIONS | |
| SEA-LEVEL RISE CONCERNS AND AFFECTED MAJOR CITIES | |
| DEPLETION OF FISHERIES | |
| INCREASING FREQUENCY OF BUSHFIRES | |
| MELTING OF GLACIERS | |
| VULNERABLE INDIGENOUS COMMUNITIES | |
| INCREASING FREQUENCY OR INTENSITY OF CYCLONS (UNCERTAIN) | |
| SHIFT OF PERMAFROST BORDER TO THE NORTH | |
| RECESSION OF ISOLATED AREAS | |
| CORAL BLEACHING | |
| CORAL REEFS AT RISK | |
| INCREASING MONSOONAL PRECIPITATION EXTREMES | |
| INCREASING WEATHER EXTREMES | |
| MEGACITIES | |
| POPULATION DENSITY:<br>DENSE<br>MODERATE<br>SPARSE | |

## Annex 3.1: Two images to challenge perception

Image 1


Image 2

**✂ cut and distribute**

## Annex 4.1: Getting the briefing

| | |
|---|---|
| Create a picture that reminds grocery shoppers of the effects of single-plastic use in distribution and retail | Create a picture that alerts local residents about the impact of urban planning in ecosystem preservation in their vicinity |
| create a picture that encourages the school population to collaboratively create and curate a sustainable garden | Create a picture that pushes municipality officials to consider the environmental impacts of local transportation infrastructure |
| Create a picture that invites families to plan their carbon footprint | Create a picture that invites your neighbourhood to create a compost station to reuse |
| Create a picture that campaigns for sharing lifts to school or activities between parents in the same neighbourhood | Create a picture that suggests science teachers to organise local groups to monitor climate change by counting butterflies |
| Create a picture that inspires the school cafeteria to reduce the use of imported food items in their meals | Create a picture that promotes planting fruit trees in local gardens, school gardens or municipality gardens |

✂ cut and distribute

## Annex 4.2: Campaign reflection card

**Questions**

- **Was it difficult to find a relevant picture?**
- **What did you struggle the most with?**
- **How did it make you feel to think about the assigned topic (single-use plastics, etc.)?**
- **How did it make you feel to create something that would help solve the problem?**

✂ cut and distribute

## Annex 7.1: Opinions about Climate Change

Examples of *Opinions*

✂ cut and distribute

- Example 1: The Earth's temperature is globally rising due to human-made carbon emissions
- Example 2: Sea-shore populations will be displaced by global warming
- Example 3: Climate change is natural and it has change much more in the past
- Example 4: Scientists don't all agree that climate change is caused by humans
- Example 5: There are more fires every year because of global warming
- Example 6: Seasons are changing, and Spring and Autumn are replaced by extended Summers and Winters
- Example 7: Polars bears are having the best times of their lives
- Example 8: There is no hole in the ozone layer
- Example 9: Wildfires only happen because there are more pyromaniacs on the loose

## Annex 7.2: Positions regarding Climate Change

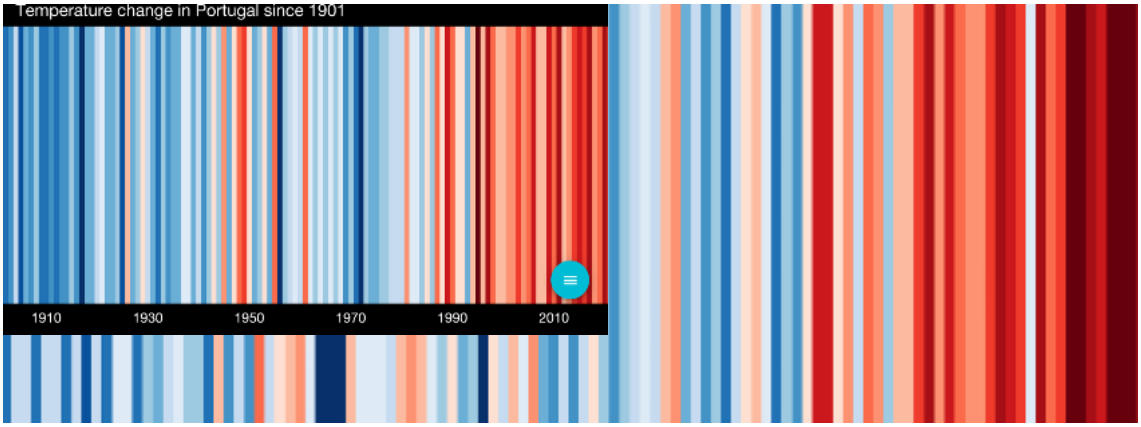
Examples of *Positions*

✂ cut and distribute

- Example 1: We believe that Climate crisis is worsening the forced migration movements.
- Example 2: School education is the best place to encourage climate action and provide tools to act on it.
- Example 3: The Climate crisis was caused by the richest countries. They are the only ones to bear responsibility to solve it.
- Example 4: Governments should act on adapting their countries to climate change, but not to stop it.
- Example 5: Fossil fuel mining and selling companies should bear the burden of paying any climate action costs.

## Annex 8.1: Global temperature change / FFF action map

**Option A** - What do you think this picture is? What can it mean? What does it remind you of?




(Global temperature change, 1850 – 2021, https://showyourstripes.info/l/globe), Annex 1a

Stripes methodology

These 'warming stripe' graphics are visual representations of the change in temperature as measured in each country over the past 100+ years. Each stripe or bar represents the average annual temperature in a particular country. For most countries, the stripes represent the period from 1901 to 2021. Ocean basins and several countries have datasets starting in the 19th century, and two cities (Stockholm and Vienna) date back even further, starting in the 18th century. For virtually every country or region, the stripes turn from mainly blue to mainly red in more recent years, illustrating the rise in average temperatures. The majority of the data comes from the Berkeley Earth temperature dataset that is up to date to the end of 2021. However, some countries (e.g. USA, UK, Switzerland, Germany, France & Sweden) provide data gathered by their national meteorological agency instead. In general, the average temperature in 1971-2000 is set as the boundary between the blue and red colours, and the colour scale varies from +/- 2.6 standard deviations of the annual average temperatures between 1901-2000. The global average is calculated based on the UK Met Office HadCRUT5.0 dataset and the colour scale goes from -0.75°C to +0.75°C. The stripes are usually shown for the period 1901-2021, but this period can be longer or slightly shorter depending on the location and whether the data is available & considered robust.

(Sources: Graphics and lead scientist: Ed Hawkins

Data: Berkeley Earth, NOAA, UK Met Office, MeteoSwiss, DWD, SMHI, UoR, Meteo France & ZAMG - https://showyourstripes.info/faq)

**Option B** – What is the connection between the topic of Climate change and the presented picture? What can it represent?

(Map of the actions of Fridays for Future, 2022, https://fridaysforfuture.org/action-map/map/), Annex 1b

(!!TIP!! The activity can be expanded by further research about **Fridays for future** events. Educator can ask participants to find information and stories from specific events, for example using social media).

## Annex 8.2: Worksheet “On time and water”

1. Think about what caught your eye in the video, what interesting thoughts came to your mind?

Thoughts/Ideas from the video

| |
|---|
| |

My comment about the idea

| |
|---|
| |

2. Write what the sentences below means to you (try to use the free-writing method - without interruption, anything you can think of)

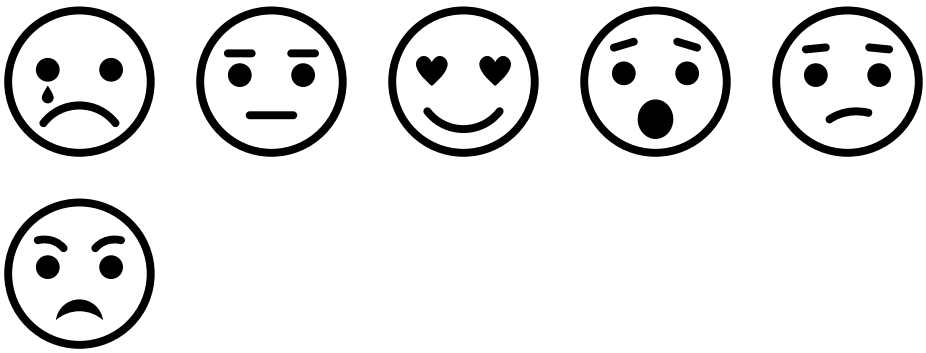
Handshake of the generations

| |
|---|
| |

3. What questions do you have about this idea? (How will you investigate this questions?)

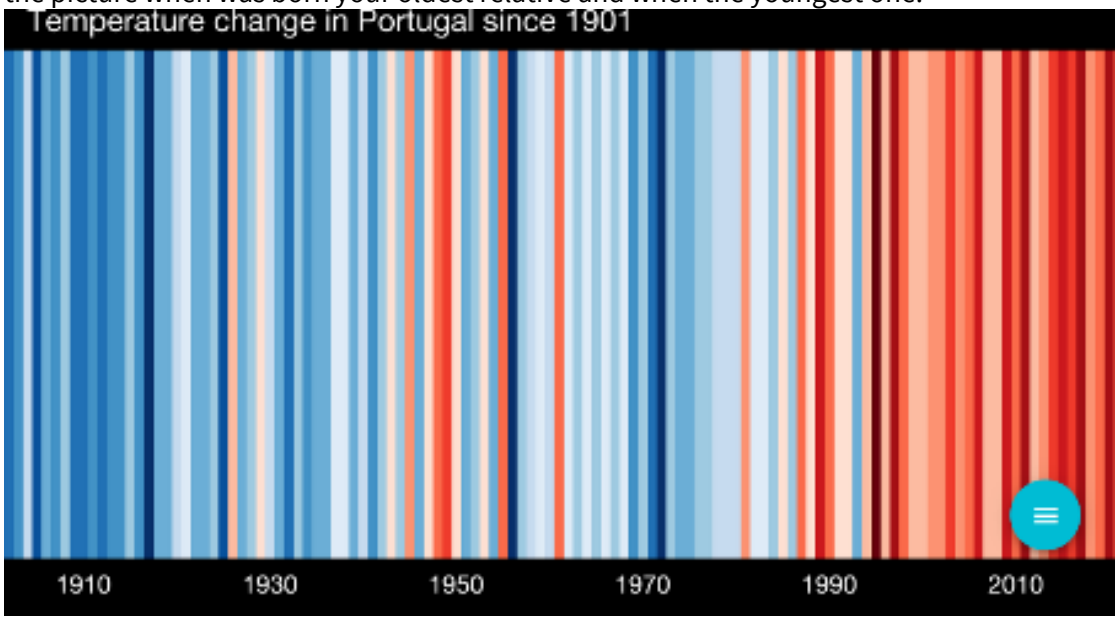
| |
|---|
| |

My feelings about the vídeo



## Annex 8.3: Worksheet “Show your stripes”

1 What does the hand shake of the generations mean in your group? Mark into the picture when was born your oldest relative and when the youngest one.




2. What could change for the environment (in your place/country) in choosen period of time?

| |
|---|
| |

3.What environmental change could observe your grandparents during the time? What coul be new for them nowadays?

| |
|---|
| |

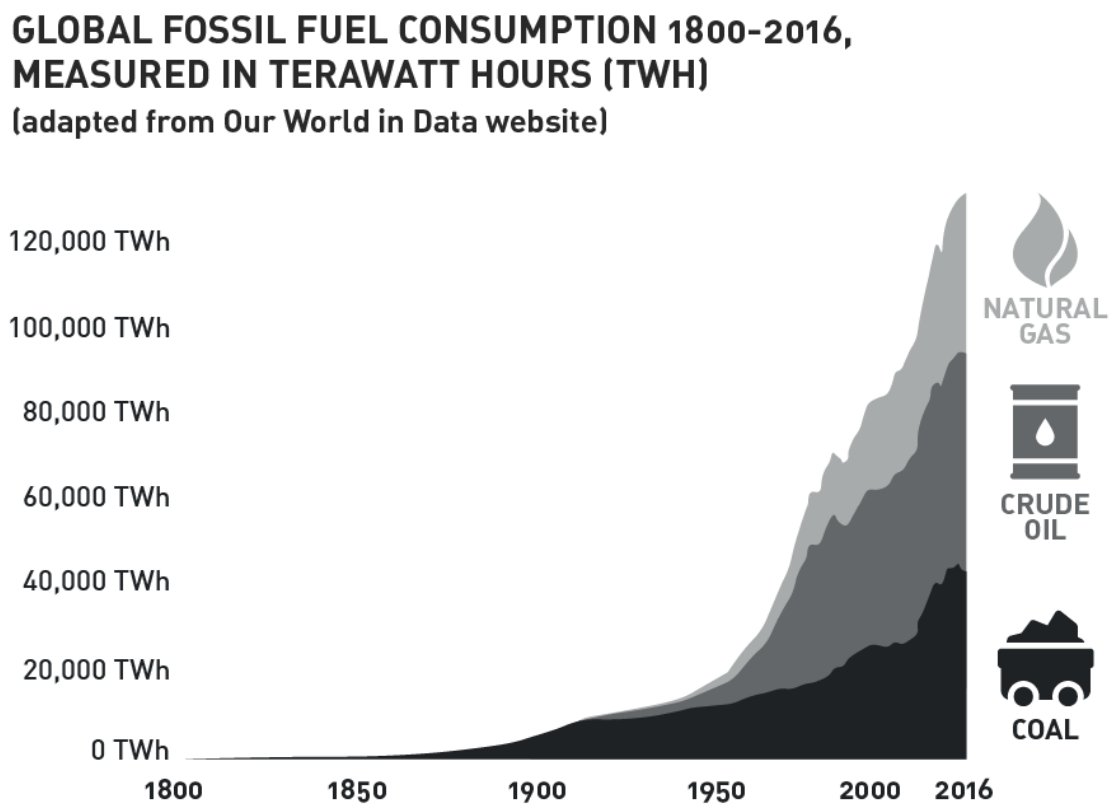
4. How could you descripe the development of the temperature in your country compared to the Globe, Oceans, other countries?

| |
|---|
| |

5. What is currently helping and hindering climate change?

| | |
|---|---|
| | |

## Annex 8.4: "Global fossil fuels consumption" graphic




(Global Fossil Fuel Consumption. Claudia Bernardi and Eric Vanhaute , A global history of humanity, 2020, CISP, ISBN 978-88-99592-04-2)

(!!TIP!! – It could be difficult for participants to understand the meaning of „fossil fuel consumption". Instead, educators can use graphs of „ world energy consumption" or examples describing sectors consuming the fossil fuels (e.g. U.S. annual fossil fuels consumption by source and sector 1980 – 2020, https://assets.weforum.org/editor/Im3mO8WgL3utPT0_XcQAdSkGJd4Gqri4PcM68IxA5S4.PNG)

# Annex 8.5: Worksheet “Are companies impacting ecosystems?”

A GLOBAL HISTORY OF HUMANITY Chapter 3.3

Changing the twenty-first century

p202

Are companies impacting ecosystems?

“Multinational corporations are relentlessly expanding their operations into ever more vulnerable and remote regions of the planet. As they do so, they drive the climate crisis and exacerbate its impacts. They bear responsibility for a global crisis which affects us all, and they bring social and environmental destruction to the local communities where they operate.

A further legacy of their oil drilling, industrial mining and huge hydroelectric projects is the erosion of those communities’ resilience at a time when the impacts of climate change are beginning to take effect. These same multinationals are also the biggest barrier to meaningful action on climate change, blocking urgently needed regulations and genuine transformational solutions.”

Source: Corporate Conquistadors. The Many Ways Multinationals both Drive and Profit from Climate Destruction, by “The Democracy Center”, “Corporate Europe Observatory”, “The Transnational Institute”, 2014.

1. Read this text, then complete the activities. Do you agree with the authors of the text above? Support your answer with arguments.

If possible, describe situations and cases in which the impact of corporations on climate change is apparent.

| |
|---|
| |

2. Do you know which companies or institutions are most responsible for C02 emissions and pollution in the world? Do some research on the web and fill a table like the one on the side.

| Name of the company / corporation | Products | Impact on the environment |
|---|---|---|
| | | |

3. Work in groups of four or five. Imagine that you are members of the Board of Directors of a multinational corporation that produces sports shoes. You have to make decisions about the issues listed below to avoid negative impacts on the environment. Discuss each of them with your group, then tick the ones you all choose.

3.1. Your main competitor discovers a new material: the GOMPACK, which makes the soles of shoes stronger and also lighter than usual. The Brazilian factory producing the GOMPACK is polluting the aquifers of the whole area. What do you do?

- You file charges against your competitor for the pollution produced.
- You too use the GOMPACK for your business, but you also finance the remediation of contaminated aquifers.
- You fund the research for a non-polluting material similar to GOMPACK.
- As soon as you get to know about the GOMPACK, you start using it in your business, too.

2. You bought 70% of the shares in “PetrolYes”, a Nigerian oil company. Many of the oil wells are located in the forest. What do you do?

- You extract the oil, but you also take the necessary precautions to avoid pollution (this increases extraction costs by 20%).
- You extract the oil at the lowest possible cost.
- You decide not to extract oil any more, so as not to pollute the forest.
- You keep extracting that oil, and you launch a new brand of petrol,“PINEpetrol”, a petrol with a scent of pine, to appeal to ecological consumers.

## Annex 8.6: Worksheet "What make sus happy"

Vol.3 Intensifying Frontiers: From A World Of Nations To Global Capitalism

What makes us happy?

p203-204

1/2 What Makes Us Happy?

1. Read the following text by the American philosopher Martha Nussbaum, which lists ten “Central Human Functional Capabilities”. Tick the capability/ capabilities that you feel humans lack the most, then write a 10-sentence paper in which you outline what steps can be taken to develop that capability. Finally, debate this topic in class. Will humans have to pay to take steps to develop the capabilities they need?

What kind of payment method should they use?

In our world, it seems that every aspect of life has a monetary value; in other words, it can be considered a commodity. Our job and our basic needs (food, water, clothing, shelter, and fuel) have a market value, but we are also used to paying to maintain our physical health and personal appearance, for maintaining good social relations, and for amusement and leisure activities.

Can we say that happiness is a commodity? What makes us happy?

1. Life. Being able to live to the end of a human life of normal length; not dying prematurely or before one’s life is so reduced as to be not worth living.

2. Bodily Health and Integrity. Being able to have good health, including reproductive health; being adequately nourished; being able to have adequate shelter.

3. Bodily Integrity. Being able to move freely from place to place; being able to be secure against violent assault, including sexual assault, marital rape, and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.

4. Senses, imagination, thought. Being able to use the senses; being able to imagine, to think, and to reason – and to do these things in a “truly human” way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training; being able to use imagination and thought in connection with experiencing and producing expressive works and events of one’s own choice (religious, literary, musical etc.); being able to use one’s mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech and freedom of religious exercise; being able to have pleasurable experiences and to avoid nonbeneficial pain.

5. Emotions. Being able to have attachments to things and persons outside ourselves; being able to love those who love and care for us; being able to grieve at their absence; in general being able to love, to grieve, to experience longing, gratitude, and justified anger; not having one’s emotional developing

blighted by fear or anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.

6. Practical reason. Being able to form a conception of the good and to engage in critical reflection about the planning of one's own life. (This entails protection for the liberty of conscience.)

7. Affiliation. (a) Being able to live for and in relation to others, to recognise and show concern for other human beings, to engage in various forms of social interaction; being able to imagine the situation of another and to have compassion for the situation; having the capability for both justice and friendship. (Protecting this capability means, once again, protecting institutions that constitute such forms of affiliation, and also protecting institutions that constitute such forms of affiliation, and also protecting the freedoms of assembly and political speech.) (b) Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. (This entails provisions of nondiscrimination.)

8. Other species. Being able to live with concern for and in relation to animals, plants, and the world of nature.

9. Play. Being able to laugh, to play, to enjoy recreational activities.

10. Control over one's environment. (a) Political: being able to participate effectively in political choices that govern one's life; having the rights of political participation, free speech, and freedom of association (b) Material: being able to hold property (both land and movable goods); having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.

Source: M. Nussbaum, Creating Capabilities, 2011.

## Annex 8.7: Worksheet "Organisations"

Observe the images and read the captions. Then search online for more information and fill in the table of the identity card of each movement.

| | |
|---|---|
| ID of *org* | |
| Main goals: | |
| Where it is active: | |
| How you can get involved: | |

Why should people join the organisation?

| |
|---|
| |

Sign up list

| |
|---|
| |

Fridays for future

“Fridays for Future” is a movement involving young people all over the world. It was born thanks to Greta Thunberg (on the right). Activists of this movement want to make everybody aware of the need to change their lifestyle, so that human actions have less impact on climate change.

4ocean

“4ocean” is a united states for profit company that sells bracelets made from recycled materials, usually apparel and plastic bottles. The company uses a share of its profits to help clean the oceans from plastic pollution: it removes one pound of trash for each bracelet that is sold.

Degrowth

The “degrowth web portal” helps everybody to connect to groups, movements and associations working for “a form of society and economy which aims at the well-being of all and sustains the natural basis of life”(www.degrowth.info/en/).

One Earth

One Earth is a nonprofit organization working to accelerate collective action to solve the climate crisis through groundbreaking science, inspiring media, and an innovative approach to climate philanthropy. The solutions for the climate crisis already exist, and the latest science led by One Earth shows we can achieve the critical 1.5°C goal through three pillars of collective action.

Source: Claudia Bernardi e Eric Vanhaute, A Global History of Humanity, 2020, CISP, ISBN 978-88-99592-04-2 - Volume 3

# Annex 8.8: Worksheet "Paid and Unpaid Actions "

Vol.3 Intensifying Frontiers: From A World Of Nations To Global Capitalism

What makes us happy?

p204

Paid And Unpaid Actions

1. Draw a table similar to the table on the side. Make a list of your daily actions at home and elsewhere. In the second column, write the actions that are paid and write those that are unpaid in the third column.

| Hour of the day | Paid actions | Unpaid actions |
|---|---|---|
| | | |
| | | |

2. Actions in the third column are unpaid. Very often, their effect cannot be calculated, nor can they be described in quantitative terms. Do they have any other kind of value?

Consider your sports activities. They are not paid (on the contrary, you often pay to play them!), so it looks like they do not have any financial return. But if you enjoy your sports training, you feel good and are amused. You appreciate the quality of this return, which has value for your well-being. Moreover, you are investing in your health so you will not get sick as frequently, and you will not burden your country's health care system. Every unpaid action has its own value and can turn into benefits for you, for society, for the government or for the environment.

3. Work in pairs and list at least five other actions that do not have any financial value at first sight but have both a qualitative and quantitative value.

Write down the positive outcomes that each of them can cause.

| |
|---|
| |