Training manual
"In the mood for climate change?"

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Work Plan: The main aim of the work plan is to strengthen youth engagement in raising awareness on the widespread impacts of recent climate changes on human and natural systems and in resilience building, making European rural communities more prepared to cope with the effects of climate changes, especially the displacement of people from already vulnerable areas. The work plan included the following series of activities: an online training course to provide rural young people with the information and knowledge needed to create a common understanding of the topic, an international seminar to discuss and analyze the realities related to climate changes, an international summer school to create materials, plan a European awareness raising campaign and prepare the participants to transfer the knowledge in their movements and local communities and a series of local campaigns to spread the word and to put into practice the campaign planned during the summer camp.

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Introduction

How did this publication appear

The present publication represents one of the outcomes of the first phase of MIJARC Europe's Annual Work Plan 2016 - an online training course. The online TC was entitled "**In the mood for climate change?**" and it was delivered for a period of two months on the platform **teachable.com.** It was designed as a fun course that would give participants the basic information on the phenomenon of climate change. Even though climate change is a top priority at world level and everybody is talking about it, individuals know little about what it actually means and why it is important to take action to stop the warming up of our planet.

The course aimed to equip young people with the basic knowledge needed to understand the phenomenon of climate change. It also introduced participants to a different learning environment that could serve both as a tool for personal learning and as a tool for teaching others, while creating the context for grasping the basic information on the topic.

In the first two weeks the participants had the chance to explore the platform, reflect on their learning objectives and get to know each other better. The next three weeks were dedicated to exploring what climate change is, why it is happening and what are its effects. They also explored interesting issues such as: the difference between global warming and climate change, the difference between weather and climate and how amazing our planet really is. Then, they spent two weeks looking at what is their role in climate change, what changes are in their power and how they could put pressure on other stakeholders to make changes of their own.

At the end of the course, MIJARC Europe decided that it would be useful to transfer the contents of the online training course into a training manual that could be used by youth workers and educators in its member movements and would make the information on the topic available even to those who do not have access to Internet or to those who prefer to learn offline. Therefore, the two trainers, Florina and Thomas, tried to adapt the content of each unit to offline sessions as much as possible.

How to use this manual

The manual contains five units each of them divided into sub-units. At the beginning of each unit you can find information on its contents, its learning objectives, the sub-units and the time needed for each. Inside the sub-units you will find step to step guidance on how to organize the session, including all the materials that you need.

Our recommendation is to go through the units in the order they appear in this manual, because it ensures a good flow of information. However, the units do not necessarily depend on each other so in case you want to explore only one unit or only a short sub-unit on a specific topic, you will find all that you need without having to go through the previous ones. Also, you can choose how to organize your session, add something else or not do all the activities.

We hope that you will find this manual useful and that it will provide the right support for your work in your local, national or international movement.

Unit 1: What is climate change and why it is happening

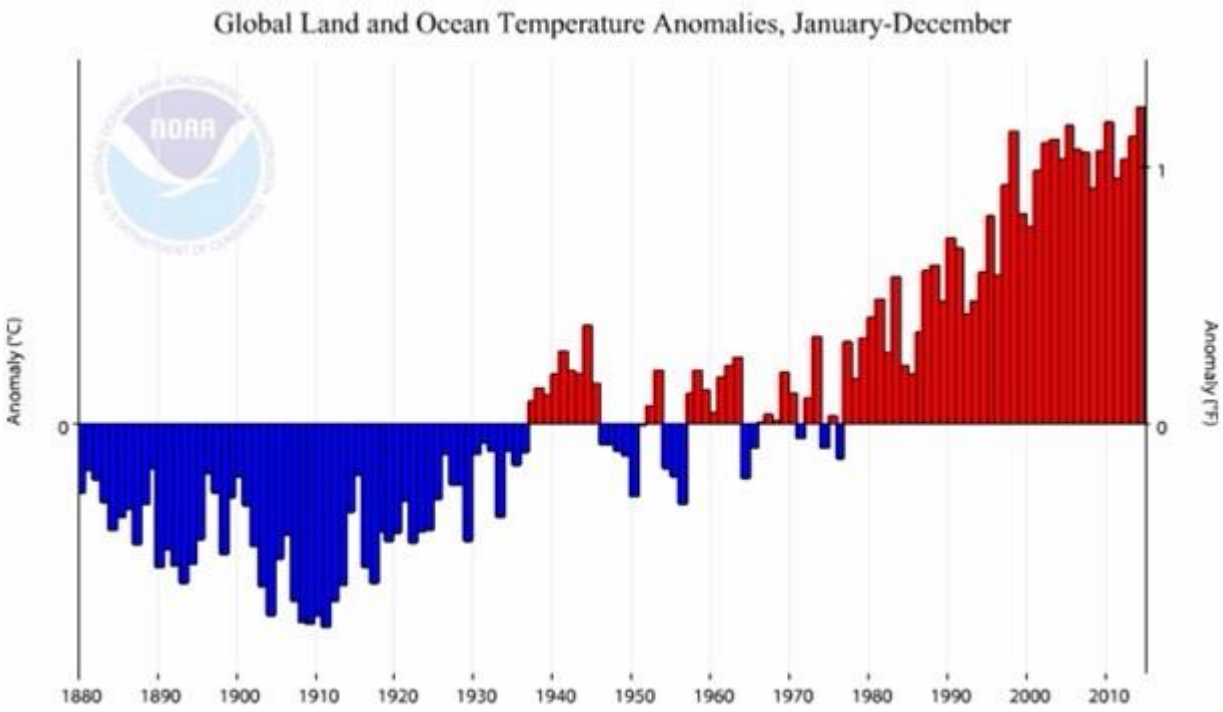
Unit title	What is climate change and why it is happening
Unit structure	1.1. Is the Earth warming up - 20 minutes 1.2. Greenhouse gases? Atmosphere? - 20 minutes 1.3. What defines the temperature on Earth? - 40 minutes 1.4. No pollution is the clear solution - 50 minutes 1.5. Climate change is not the same as global warming - 20 minutes
Contents	• warming of the Earth • climate and weather • top contributing factors • human actions leading to the warming of the Earth
Learning outcomes	⌛ learning what climate change is ⌛ knowing the main gases that warm the Earth and what produces emissions of such gases ⌛ understanding the connection between human activities and changes in the climate
Course objective	➢ explore the causes and effects of climate change ➢ develop the participants' knowledge and competences in key concepts of climate change and sustainability

Unit 1.1. Is the Earth warming up? - 20 minutes

- Start by explaining the context of global warming and climate change. Tell participants that the topic of climate change has been widely discussed and debated in the last decades by various industries, governments, experts, scientists, the civil society, environmentalists, researchers and politicians. Climate change is a phenomenon that has a lasting impact on any living organism on our shared planet. To understand the natural and anthropogenic sources that intensify climate change, we need to put our scientist glasses on and zoom in on the underlying processes that are the cause for climate change.
- Show this video (Video 1) to the participants, then show the picture (Picture 1) below or give copies of the picture. Explain that since the beginning of the 20th century, scientists have been observing a change in the climate that **cannot be attributed to any of the "natural" influences of the past only.** This change in the climate, also known as *global warming*, has occurred faster than any other climate change recorded by humans.
- Ask participants to form buzz group (group of 2-3) and talk about what they think are the causes for this recorded global warming. Give them about 7 minutes to buzz about this and write their conclusion on a post-it. Stick the post-its on the wall and read them all. Continue by explaining that the main cause of climate change is the increased concentration of **greenhouse gases** in the atmosphere since the industrial revolution in the late 18th century. The increased amount of

gases which **absorb and re-emit thermal radiation,** has directly led to more heat being retained in the **atmosphere** and thus an increase in global average surface temperatures. The increase in temperature is also leading to other effects on the climate system. Together these affects are known as **anthropogenic (human caused) climate change.**

Picture 1



Online resources:

- **Video 1:** https://www.youtube.com/watch?v=gaJJtS_WDmI

Unit 1.2. Greenhouse gases? Atmosphere? - 20 minutes

- Start by showing the participants a picture of a greenhouse. Ask them if they know what that is and if they can explain how it works. Ask them for what are greenhouse used and if they have ever used one.
- Next ask them if they can think of what would be the connection between a greenhouse and global warming. This will give a good contexts for explaining of the atmosphere of our planet works and what are Earth's natural mechanisms for controlling the temperature on its surface. Just like some plant species need the right temperature conditions of living in a

greenhouse, our world also needs a **'greenhouse',** which we call **'the atmosphere',** to create the right conditions for us and other animal and plant species to survive.

- Next ask the participants to guess what would be Earth's temperature if there was no greenhouse effect. You can leave them to guess or you could give them possible answers: a) 0°C b) -72°C c) +15°C d) -18°C. The right answer is -18°C which says a lot about how important the greenhouse effect is for the survival of life on Earth.
- End the session by showing this video (Video 1) which explain the greenhouse effect in detail.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=BPJJM_hCFj0

Unit 1.3. What defines the temperature on Earth? - 40 minutes

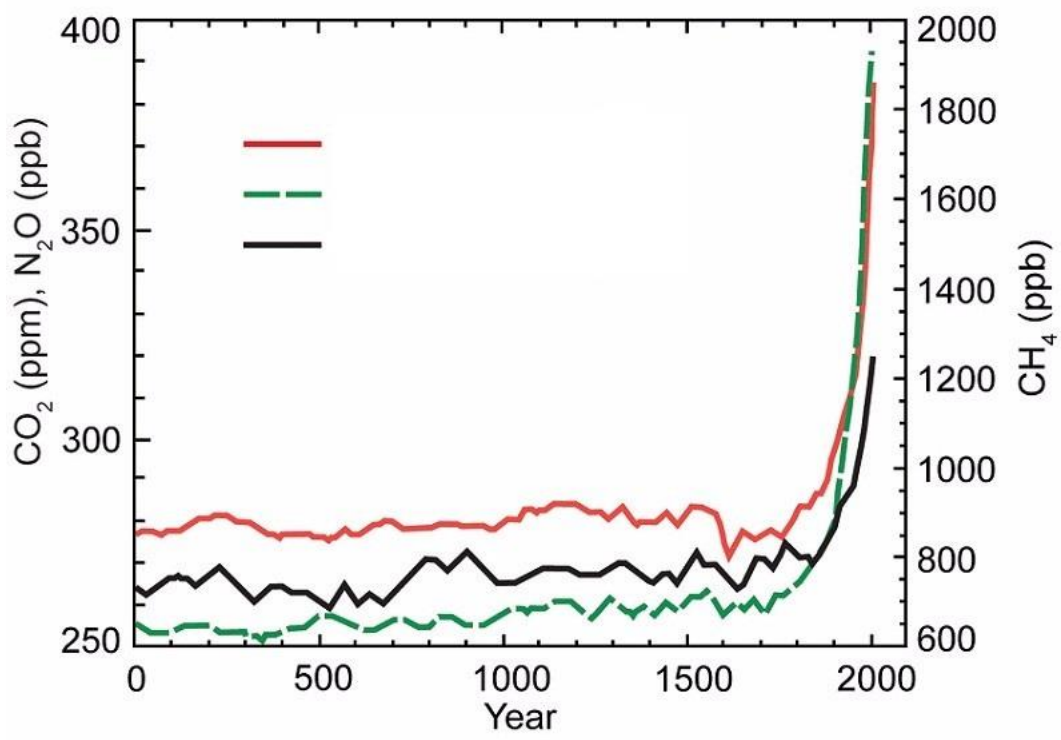
- Split the participants in groups of 2-3 people and ask each group to draw or write on a flipchart what they think defines the temperature on Earth. Give them about 15 minutes for this task, then ask each group to present their work.
- Next explain that the average temperature on earth, thanks to the greenhouse effect, **is 15°C.** The temperature of the earth results from a balance between energy coming into the earth from the sun (solar radiation) and the energy leaving the earth into outer space. About half the solar radiation striking the earth and its atmosphere is absorbed at the surface. The other half is absorbed by the atmosphere or reflected back into space by clouds, small particles in the atmosphere, snow, ice and deserts at the earth's surface. Part of the energy absorbed at the Earth's surface is radiated back (or re-admitted) to the atmosphere and space **in the form of heat energy** . The temperature we feel is a measure of this heat energy. In the atmosphere, not all radiation emitted by the earth reaches outer space. Part of it is reflected back to the Earth's surface by the atmosphere (the greenhouse effect) **leading to a global average of around 15°C, well above the -18°C which would be felt without the natural greenhouse effect.**
- Next show them this video (Video 1) which explains the greenhouse effect and the concept of heat energy.
- Continue by explaining that the 'glass' that surrounds the earth and creates the greenhouse effect are the greenhouse gases. Ask participants if they know which are the greenhouse gases.
- Explain that mostly these are Carbon Dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Water Vapor (H2O) & Fluorinated gases. Explain that they are **'invisible' gaseous compounds in the atmosphere** - like CO2, CH4 & H2O - that are capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. **Due to natural processes and human activity, the emissions of greenhouse gases has lead to a rapid effect of climate change.** It is not hard to understand that industries and transportation vehicles like cars and airplanes are emitting CO2, the most human caused greenhouse gas.
- To finish, show participants this video (Video 2) which explains how greenhouse gases work.

Online resources:

- Video 1: https://www.youtube.com/watch?v=ZzCA60WnoMk
- Video 2: https://www.youtube.com/watch?v=sTvqIijqvTg

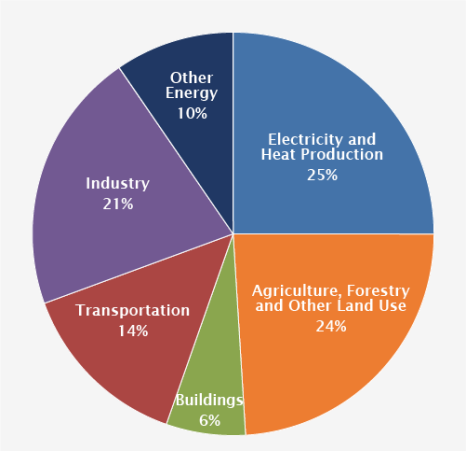
Unit 1.4. No pollution is the clear solution - 50 minutes

- Show the participants Graph 1 below and ask them to guess why greenhouse gas is represented by each line. The red line is Carbon Dioxide - CO2, the green line is Methane - CH4 and the black line is Nitrous Oxide - N2O. Explain that the graph shows the emissions of these 3 main greenhouse gases in the last 2000 years. (PPB stands for 'Parts Per Billion').



- Remind the participants which are the four main greenhouse gases: Carbon Dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Water Vapor (H2O) & Fluorinated gases. Split them in 5 groups and assign the study of a different gas to each group. They have about 20 minutes to research on the natural and human activities that produce that particular gas and prepare a presentation for the rest of the group. Once everybody has finished invite them to give plenary presentation of their findings.
- Next, explain that it is also important to have a look at what industries are the ones producing the largest amounts of greenhouse gases. When we have a closer look at **emissions per economic sector**, we learn that the production of heat and electricity, industrial processes & agriculture and forestry are the main causes. Chart 1 on the right is created by the International Panel on Climate Change (IPCC) and dates from the year 2010. **Electricity and Heat Production** - the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global greenhouse gas emissions. **Industry - g**reenhouse gas emissions from industry primarily involve fossil

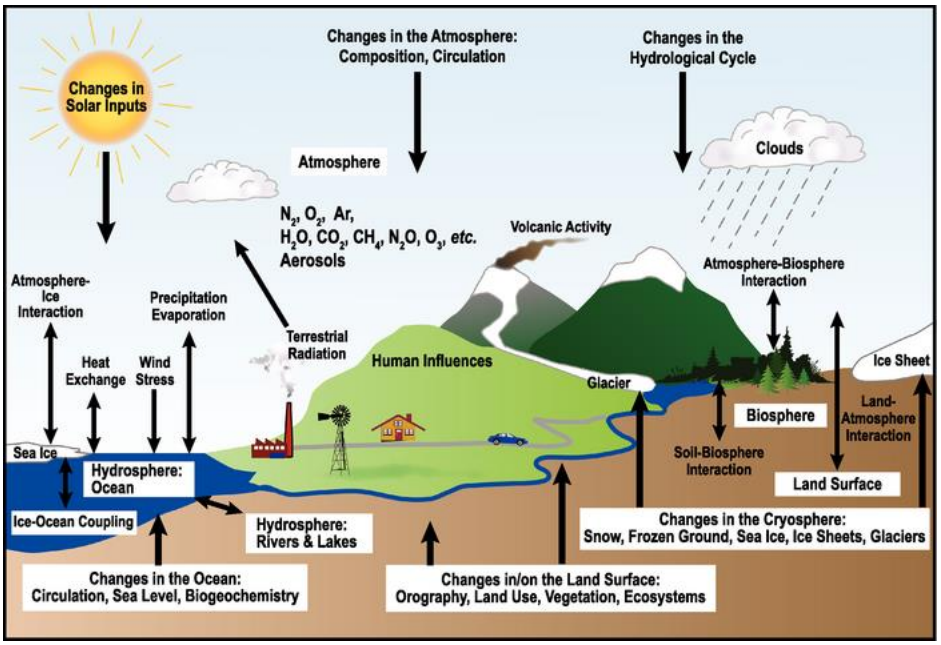
Chart 1



fuels burned on-site at facilities for energy. **Agriculture, Forestry, and Other Land Use** - greenhouse gas emissions from this sector come mostly from agriculture (cultivation of crops and livestock) and deforestation. **Transportation** - greenhouse gas emissions from this sector primarily involve fossil fuels burned for road, rail, air, and marine transportation. Almost all (95%) of the world's transportation energy comes from petroleum-based fuels, largely gasoline and diesel. **Buildings** - greenhouse gas emissions from this sector arise from on-site energy generation and burning fuels for heat in buildings or cooking in homes. **Other Energy** - this source of greenhouse gas emissions refers to all emissions from the energy sector which are not directly associated with electricity or heat production, such as fuel extraction, refining, processing, and transportation.

Unit 1.5. Climate change is not the same as global warming - 20 minutes

- Start this session with a reflection moment by asking the participants: when you hear climate change, what are all the things you think of when you reflect on this concept; why does it matter to you to learn about climate change, what is the feeling you get when you learn about this topic, what are the possible impacts climate change can have on your personal life and the lives of others? Think about all the things you know that are linked with climate change. Ask them to write a few lines on a post-it and keep it with them.
- Next, summarize the what has been learned: so far you've been learning that the world is covered in the atmosphere like a plant in a greenhouse, that because of very small invisible parts in the air and the atmosphere the greenhouse effect is possible, that because of natural and human-caused activities this greenhouse effect is warming up our planet and that this ultimately leads to climate change. But, indeed climate change is not the same as global warming.
- Explain what is the difference between the two: climate change refers not only to global changes in temperature but also to changes in wind, precipitation, the length of seasons as well as the strength and frequency of extreme weather events like droughts and floods. Global warming is the term that is used to describe the global rise in temperature over the last +-150 years. Another difference between the 2 terms is that global warming is a worldwide phenomena while climate change can be seen at global, regional or even more local scales, such as the rising sea level that will affect many cities situated close to the sea. Many of these changes (not only the rise in temperature) will cause unexpected and dangerous effects on life around the world. **Climate change is the complex inter-connection between the different ecosystems of our world,** as shown in Picture 1 below. A complex combination of the atmosphere, the cryosphere, the hydrosphere and the biosphere have severe consequences for all life on Earth. **And humans play an important role in this picture!**

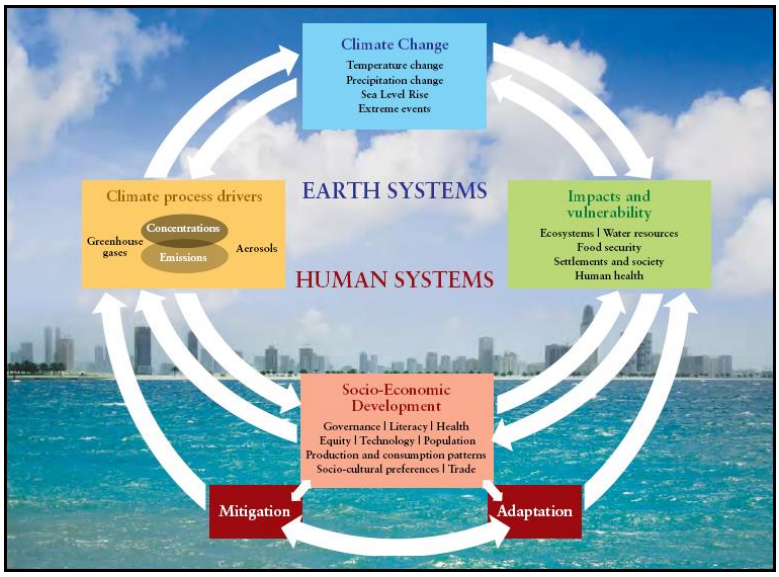


Unit 2: Why should we care about climate change

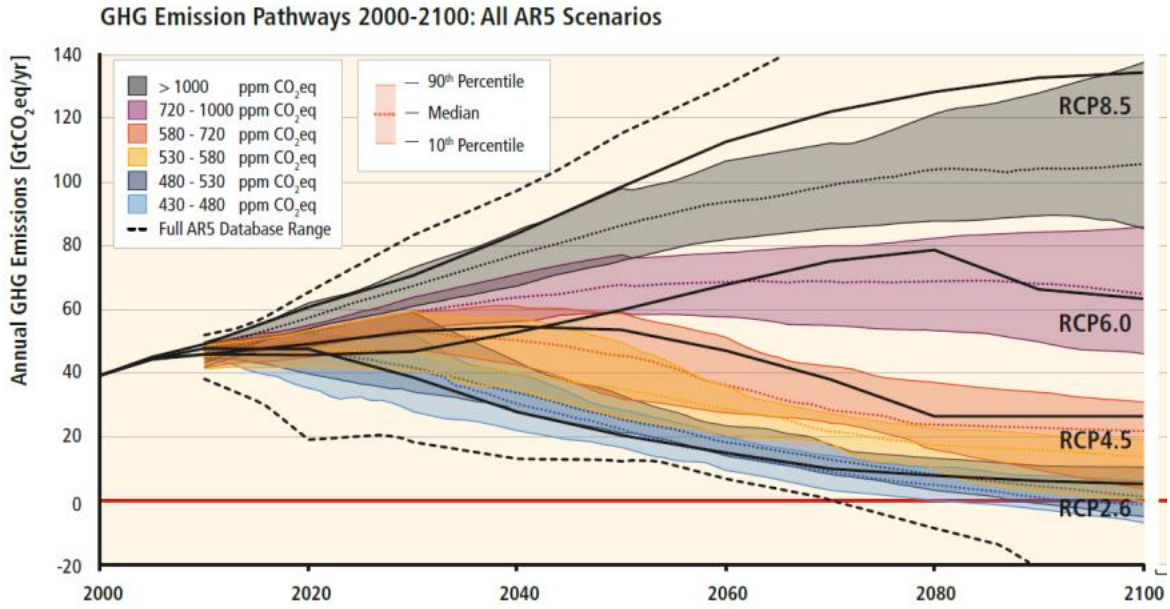
Unit title	Why should we care about climate change
Unit structure	2.1. Different future scenarios - 60 minutes 2.2. Earthbook - everything is connected - 100 minutes 2.3. Ecosystems - how humans threaten them - 30 minutes
Contents	• warming scenarios • changes seen in the air, water and ecosystems • he web of life and the balance of the universe
Learning outcomes	⌛ understand why it is difficult to predict to what extent the Earth will warm up and how scenarios work ⌛ be able to identify the changes caused by climate change in their own community and in their own country ⌛ become more aware of the "visibility" of climate change and the sense of emergency in taking action ⌛ be able to explain how eco-systems work and how humans break the balance
Course objective	➢ develop the participants' knowledge and competences in key concepts of climate change and sustainability ➢ explore the causes and effect of climate change

Unit 2.1. Different future scenarios - 60 minutes

- Start by explaining the current context of temperature on Earth. The global temperature is on the rise and is being measured since 1850. The data clearly shows that the temperature has been rising ever since. **The latest update is: April 2016 has been the hottest month ever recorded since 1850.** So, we know that the global temperature is rising, but some questions may arise: **How are scientists able to observe this? Where do they see and research these temperature changes? And how do they use this information to create projections and future scenarios that can help policy makers to make the right choices?** Give participants some time to reflect on these questions.
- In order to give a clear answer to these questions, show the participants this video (Video 1) which gives an insight into the work of the Intergovernmental Panel on Climate Change (IPCC).
- **The conclusion of the IPCC is clear: We have to stop emitting greenhouse gases as soon as possible.** But how can we put that into practice? To explore this question, first ask the participants what the term "mitigation" refers to. Ask them to get into pairs and try to define this term. Give them about 3 minutes, next collect their answers on a flipchart/board. Explain that **"Mitigation is the action of reducing the severity, seriousness, or painfulness of something."** When you hear or read about mitigation in relation to climate change, **it refers to all actions taken to reduce the negative impacts of climate change.** Depending on the actions of politicians, leaders, governments and policy makers today, our common future will look differently, or less severe. Does that mean that you can just sit down and wait for your governments to act? Of course not! **The more the public demands concrete measurements taken and advocates for climate change solutions on a local, national or even international level, the more governments will change their policies according to the needs and desires of the public demanding it.**
- Ask participants to have a look at Picture 1 below, which shows all the different systems in correlation that affect the possibilities to limit the effects of climate change.



- Yes, it is very complex, but give participants this example to help them understand better: "*Currently Europe is experiencing an economic crisis since 2008. Because of this crisis, a lot of money that was normally invested in public wealth went to the banks, governmental institutions and sometimes (inter-)national or private companies. The money that was relocated to these institutions had to be 'saved' or cut from other sectors, resulting in less economic growth and a decline in public services. Life became more expensive and some parts in Europe are experiencing a deep recession, making the middle-classes of those countries less and less wealthy, affecting their consumption patterns. Because of this current situation, where economic recession is limiting the possibilities to invest largely in clean technology or other 'required' actions to limit the negative effects of climate change, Europe is less capable to 'adapt' to climate change, and thus* ***results in a negative effect on climate change mitigation.*** *But, on the same time, because of this European economic recession, less GHG are emitted in the air, because European industries are in decline & consumption patterns change, this* ***results in positive effects on climate change mitigation."***
- Explain that because of the complexity of predicting how the actions of today will decrease or partly decrease the negative effects of climate change on people, the Intergovernmental Panel on Climate Change has created different 'scenarios or pathways'. ***"****The goal of working with scenarios is not to predict the future but to better understand uncertainties and alternative futures, in order to consider how robust different decisions or options may be under a wide range of possible futures****"***
- Based on their scientific collection of research their 4 pathways of the future look like this:



- At first, this looks extremely complicated. But generally what this picture is showing us, is that depending on how much Green House Gases (GHG) are emitted in the air it will lead to a warm (RCP 2.6), warmer (RCP 4.5), very warm (RCP 6.0) or hot (RCP 8.5) planet. Across all RCPs, global temperature is projected to rise by 0.3 to 4.8 °C by the late-21st century. If you follow the line of RCP 8.5 (RCP stands for Representative Concentration Pathway) you see that the emitted GHG

keep on rising very steeply and do not 'peak' in the 21st century. This is an example of the worst scenario, because this pathway shows us the effect of 'business as usual'. If we would not take any action at all, if we would keep on emitting GHG like we have been doing in the last century, this will lead to a much higher temperature by the end of this century, then in the other scenarios.

- If you look to RCP 2.6 you see that the line stays steady, stays the same, starting somewhere around 2010. This scenario assumes that GHG peak between 2010 - 2020, which means that the highest point of CO2 emissions ever recorded by humans happens within this period. And then the GHG in the atmosphere decrease rapidly.
- These scenarios are simulated with the use of large climate system modelled computers, but according to the IPCC it is extremely difficult to predict the outcomes due to 4 reasons. "Predictions of future climate are imperfect because they are limited by significant uncertainties that stem from:

  1. The natural variability of climate
  2. Our inability to predict accurately future greenhouse-gas emissions
  3. The potential for unpredicted or unrecognized factors, such as volcanic eruptions or new or unknown human influences, to perturb atmospheric conditions
  4. And our as-yet incomplete understanding of the total climate system.
- To limit the overall increase of temperature on our planet as much as possible, we need to peak with our total amount of GHG emissions as soon as possible. Some countries are already showing today that it is possible to provide energy for their citizens without emitting GHG gasses at all.

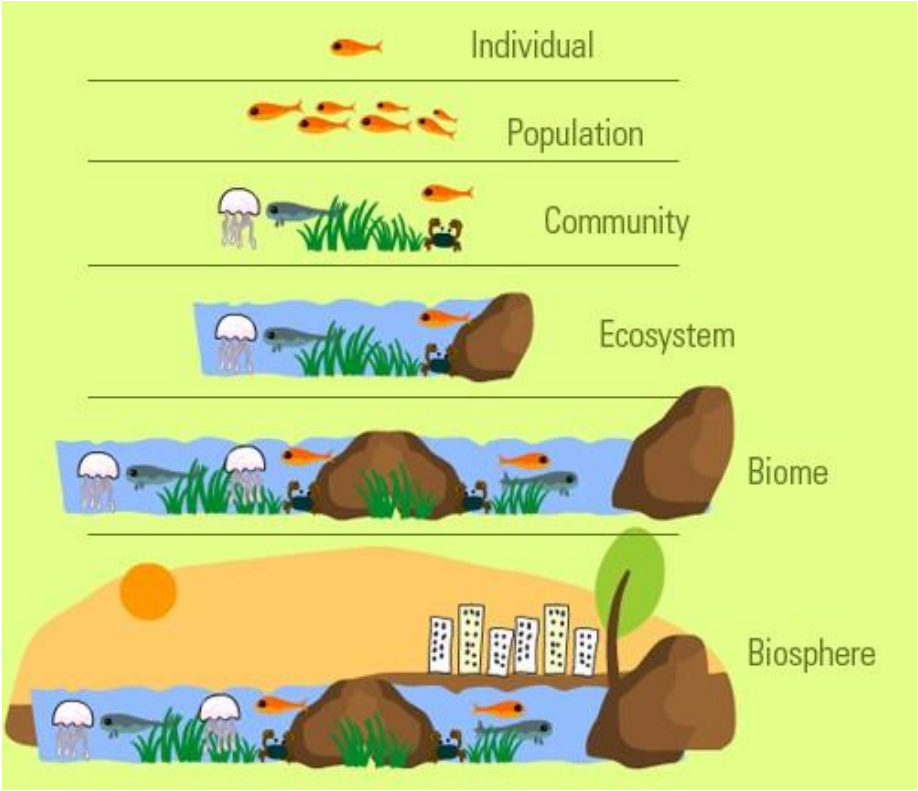
Online resources:

- **Video 1:** https://www.youtube.com/watch?v=6yiTZm0y1YA

Unit 2.2. Earthbook - everything is connected - 100 minutes

- Start this session with an exercise of creativity. Ask the participants to split into group of 3-4. Their task is to image that Planet Earth is their friend on Facebook. They will have 30 minutes to design Planet Earth's Timeline page. What would Planet Earth post on Facebook? What would be its friends? What would be its profile picture? What would Planet Earth like? Once they have finished, invite them to present their timelines. Next, play this funny video (Video 1).
- Next, play the web of life game to help participants understand how everything on Earth is interconnected. You can find the information on what you need to play it here (Web of Life).
- Highlight once more that all plants and living and non-living organisms, the human species and all other animals are all inter-connected, no not by Facebook, but within our tremendous big planet. This connection of everything with everything on our planet is called **the Biosphere.** In science something is only certain when it is 100 % known, so far scientist have not found another planet with living organisms on it. That is why **the only biosphere we know off is our planet Earth. The study of the relations of organisms to one another and to their physical**

environment of the biosphere is called <u>Ecology</u>. The biosphere can be classified into different parts, called **the levels of organization,** as seen on Picture 1 below.



- **Individual, Species, Organism** - an individual is any living thing or organism. Individuals do not breed with individuals from other groups. Animals, unlike plants, tend to be very definite with this term because some plants can cross-breed with other fertile plants. **Population - a** group of individuals of a given species that live in a specific geographic area at a given time. Note that populations include individuals of the same species, but may have different genetic makeup such as hair/eye/skin colour and size between themselves and other populations. **Community** - this includes all the populations in a specific area at a given time. A community includes populations of organisms of different species. In the diagram above, note how populations of gold fishes, salmons, crabs and herrings coexist in a defined location. A great community usually includes biodiversity. **Ecosystem - e**cosystems include more than a community of living organisms (biotic) interacting with the environment (abiotic). At this level note how they depend on other abiotic factors such as rocks, water, air and temperature. **Biome - a** biome, in simple terms, is a set of ecosystems sharing similar characteristics with their abiotic factors adapted to their environments. **Biosphere -** when we consider all the different biomes, each blending into the other, will all humans living in many different geographic areas, we form a huge community of humans, animals and plants, in their defined habitats. A biosphere is the sum of all the ecosystems established on Earth.

- Finish by showing participants this video (Video 2) which explains what ecology is and how it works.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=GBrLOlTbJQc
- **Video 2**: https://www.youtube.com/watch?v=GlnFylwdYH4
- **Web of Life:** http://www.amnh.org/ology/features/stufftodo_bio/weboflife.php

Unit 1.3. Ecosystems - how humans threaten them - 30 minutes

- This session is designed as a video lesson. It includes four videos
- Start by explaining the context: we know the place of ecosystems in the biosphere, now let's find out how these systems work and are interrelated with and within each other. We'll try to find out how humans are playing an important part within that big web of interactions, **and unfortunately** how we're threatening the biodiversity of those ecosystems. After that we close our own cycle of knowledge with focusing on the results of human activity on those ecosystems which causes climate change and that is an even bigger threat for the biodiversity of ecosystems, but also for ourselves.
- Ask participants to think what do the **internet and ecosystems have** in common? Have a short open discussion on this, then play this video (Video 1).
- The biosphere is the house of many different ecosystems. Unfortunately some of the amazing ecosystems are disappearing because of human activity. This video (Video 2) teaches you more about **the differences of the same type of ecosystems.**
- In this video (Video 3) we will learn about the effect of 7 billion people living on our planet, and the cumulative effect of more and more people to come. We learn about the concept of carrying capacity, the effect of our growing human population in relation to other animals and plants, what land-use change is about, different kinds of pollution and resource exploitation.
- The following video (Video 4) will repeat something we have already learned, the greenhouse effect, but it takes it a step further and looks to **the impact of climate change on the biodiversity of ecosystems** and why that is unhealthy for the planet and for ourselves.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=-bE-Pydad7U
- **Video 2:** https://www.youtube.com/watch?v=ixf33dQDlXc
- **Video 3:** https://www.youtube.com/watch?v=2RC3Hsk90t8
- **Video 4:** https://www.youtube.com/watch?v=XFmovUAWQUQ

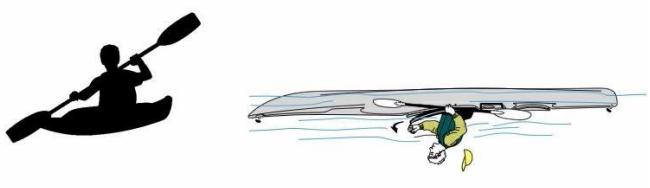
Unit 3: The effects of climate change

Unit title	The effects of climate change
Unit structure	2.4. The effects that we can already see - 15 minutes 2.5. Is climate change causing extreme weather - 50 minutes 2.6. Climate change here and there - 20 minutes 2.7. Migration caused by climate change - 45 minutes 2.8. A gender perspective on climate change - 30 minutes
Contents	• extreme weather events • water and food supply - rising sees and water scarcity • social injustice - uneven distribution of negative impacts of climate change • political instability and migration • effects on different groups - how different are the effects on men compared to women
Learning outcomes	⌛ be able to name at least three extreme weather events ⌛ become more aware that we live in an inter-dependent, global world ⌛ understand the relation between climate change effects and vulnerable areas ⌛ be more focused on a gender perspective of climate change
Course objective	➢ explore the causes and effect of climate change, focusing on migration as an effect of climate change

3.1. The effects that can already see - 15 minutes

- Start by explaining why it is difficult to make clear predictions about the effects climate change is going to have. This is because in Earth's recorded history, the average temperature has not been increasing so rapidly ever before, so we cannot know how our planet is going to react.

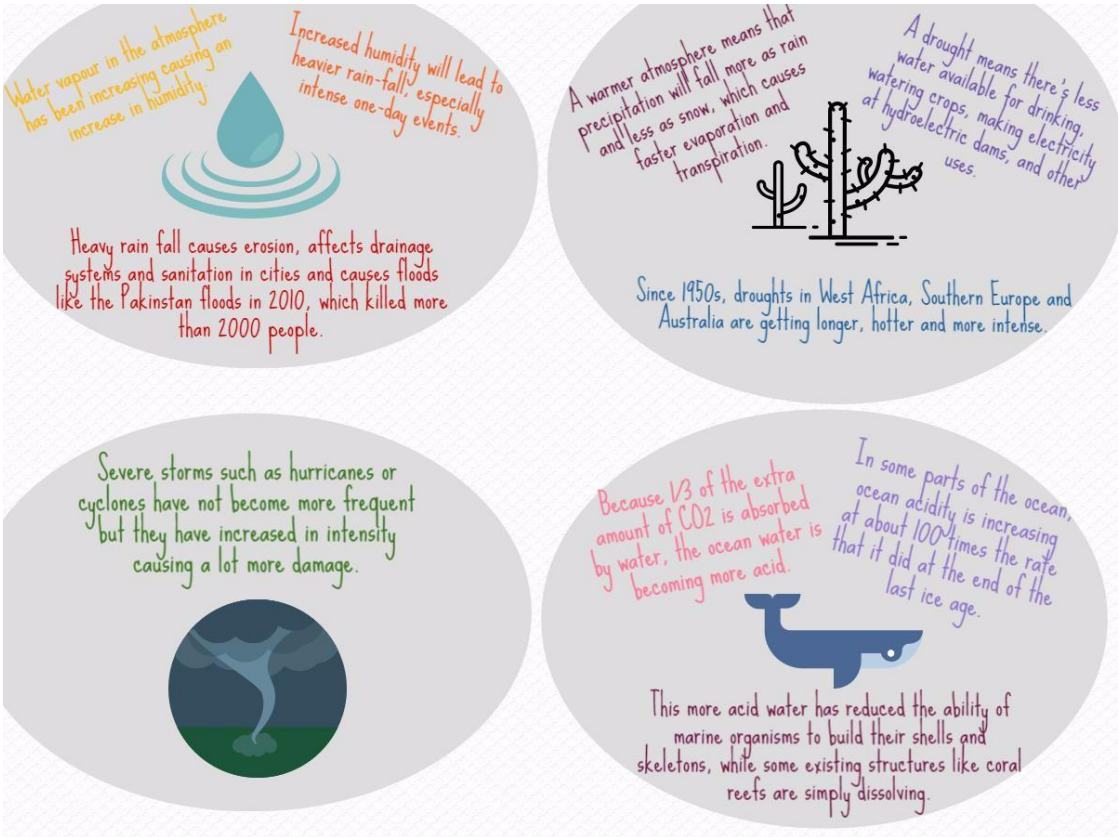
- Show participants the pictures below and ask them what this is. Ask if anybody has ever been in a kayak and what was that experience like. Explain that a kayak has only two stable states: upright or completely upside down. When you are upright in a kayak you can move from side to side and come back to the center. But, if you move too much the kayak will flip upside down and you will end up with your head underwater. From here you cannot turn the kayak back to its stable upright position.



- Explain that a leading scientist in climate change, Prof. Lesley Hughes', uses this model to explain how our planet works when it comes to its average temperatures: that we might get to a point in which we have moved so far that the planet cannot come back to its stable state and that is the point when we are actually going to feel the effects of the changes in our climate. Unfortunately, at that point we will not be able to flip the kayak back to its stable upright position.

- Write the following questions on a flipchart and give the participants time to reflect on the answer: *How much can afford to flip the "kayak" of Earth's temperature? How much evidence do we need before we starting making changes?*

- Next, brainstorm on the effects of climate change that are already visible and ask the participants to mention why they believe such effects are related to climate change. After summing up the answers show the participants the picture below and go through the different categories of effects.



- Finally, debrief the session. You could ask questions such as:
    - *Which of these visible effects were you aware of?*
    - *Can you see them in your country?*
    - *Which of them do you think will be more visible in rural areas?*
    - *How are they related to what you already know about climate change?*

3.2. Is climate change causing extreme weather? - 50 minutes

- Start the session by asking participants what they think is extreme weather. Next play this video (Video 1) which explains what is considered extreme weather. Summarize the video by explaining that **extreme weather** is any unusual, sever or unprecedented weather. It is based on the recorded history of a certain area and it is considered extreme when it reaches the lower or the upper limit of the average weather. While very dry and hot weather may be considered usual for dessert areas, the same weather conditions will be extreme is they are recorded in northern Europe. Extreme weather events include sea level rise, hurricanes, severe drought, heat waves and damaging fires and floods. Extreme weather events can affect our infrastructure, agriculture, health, and our daily livelihoods.
- Ask participants to split into groups of two or three (depending on the size of the group) and talk about the different examples of extreme weather they have witnesses in their village or in their country for 2-3 minutes. After this first round, ask them to join another group and discuss about the conclusion of their talk. After the second round ask each group to briefly present the examples of extreme weather they have already witness. Next, show them this timeline (Timeline 1) of extreme weather events that happened all around the world in 2013 and link them to the experiences of the participants and the countries they come from.
- Ask the participants what they think is the connection between weather and climate. Collect their answers on a flipchart, then play this video (Video 2) which explains that difference and the connection between climate and weather. Explain that the way the dog moves shows exactly how fluctuations in weather behave: they can be quite sudden and sometimes severe, but this is something normal that has been happening since the beginning of time. The world has witnessed a lot of severe weather events.
- Next split the room in two imaginary areas: "I agree" and "I disagree". Tell participants that you will be reading some statements and that they have to position themselves in the room depending on whether or not they agree with the statement. If they agree they have to move in the "I agree" area and if they disagree they have to go in the "I disagree" area. After each statement ask some of the people to give arguments for why they agree or disagree.
    - Possible statements you can read:
        - *The frequency of extreme weather events has increased because of global warming.*
        - *Extreme weather events are becoming more intense and severe.*
        - *Global warming is causing more intense and longer heat waves.*

- *Global warming does not currently have a big impact on extreme weather.*
- *Global warming will have a significant impact on weather patterns in the future.*

- After you finish the exercise play this video (Video 3) in which Bill Patzer explains the scientific evidence behind the relationship between extreme weather and climate change. Point out that in the video they will find the correct answers to the statements above.
- Summarize the main conclusions of the video: We know that the expert speaks about the USA, but scientific evidence from all over the world is consistent with this example, showing that **the frequency of extreme weather has not increased because of global warming.** However, we saw that there are already visible effects of climate change and even this expert admits that global warming is causing more frequent and more intense heat waves. All over the world there are regions which are already at risk and you saw how global warming adds to this risk. As Bill Patzer, the expert, says: **the question is about the amount of risk we can tolerate.** His conclusion proves exactly how the kayak example works: even though global warming does not currently have a large impact on extreme weather events, scientific evidence shows that it will have a large impact in the future, especially when it comes to the increase of the **severeness** of such events. The question is: **will it be too late? Will the kayak turn upside down irreversibly?**

Online resources:

Video 1: http://video.nationalgeographic.com/video/101-videos/weather-101-sci-1
Video 2: https://www.youtube.com/watch?v=cBdxDFpDp_k
Video 3: https://www.youtube.com/watch?v=SY6XSsF4CCo
Timeline 1: http://www.wri.org/blog/2014/01/timeline-2013-year-extreme-weather-events

Unit 3.3. Climate change here and there - 20 minutes

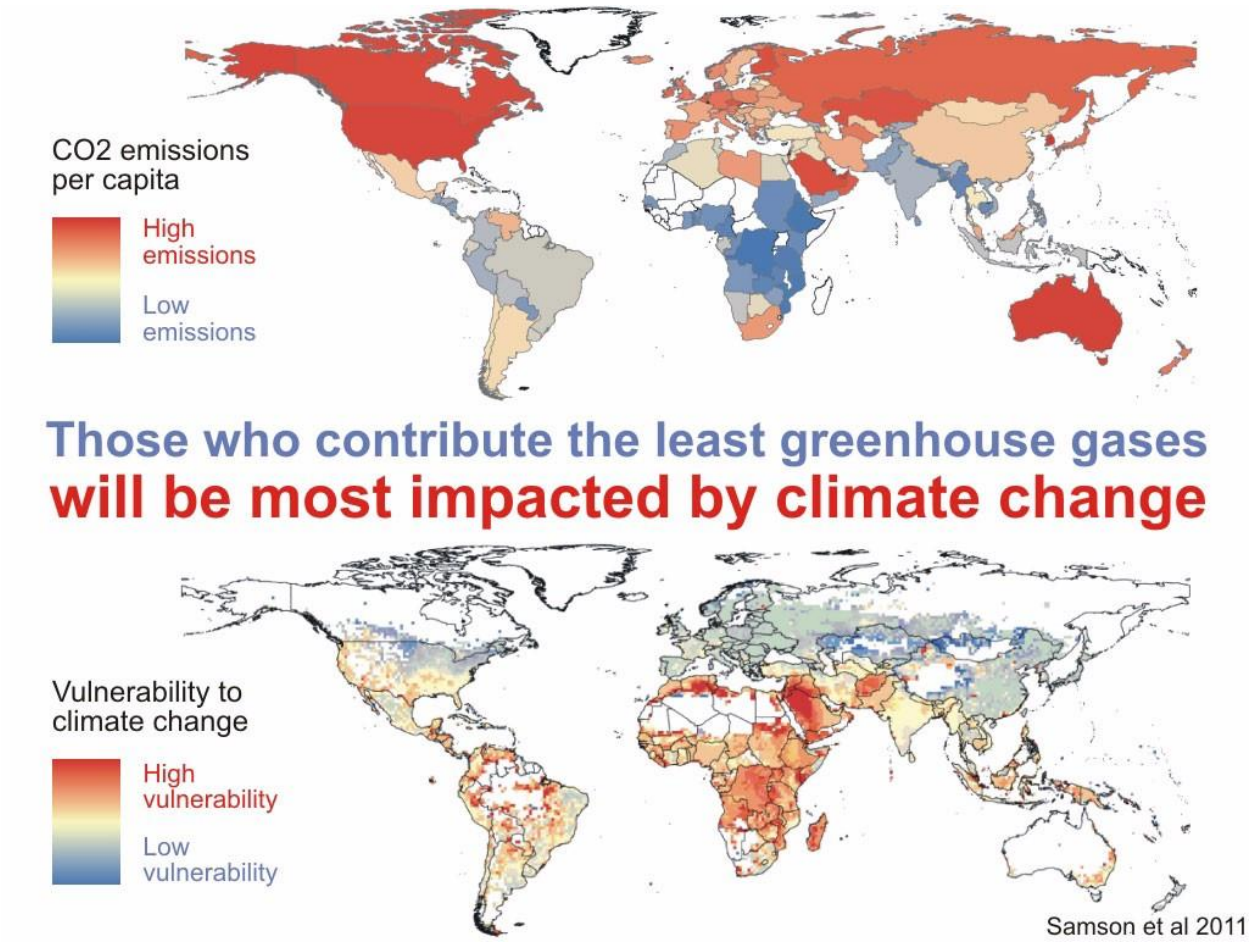
- Start this session by assigning a country to each participant. Make sure you include countries such as China, USA, India, the Russian Federation, Bangladesh, Sudan, Tuvalu, Norway, Portugal, Nepal and South Africa. You can include any country you would like as long as you have researched before how much that country contributes to climate change and how affected it will be. Ask each participants to write the name of the country he/she is representing and stick the paper on their chest so that everybody can see it.

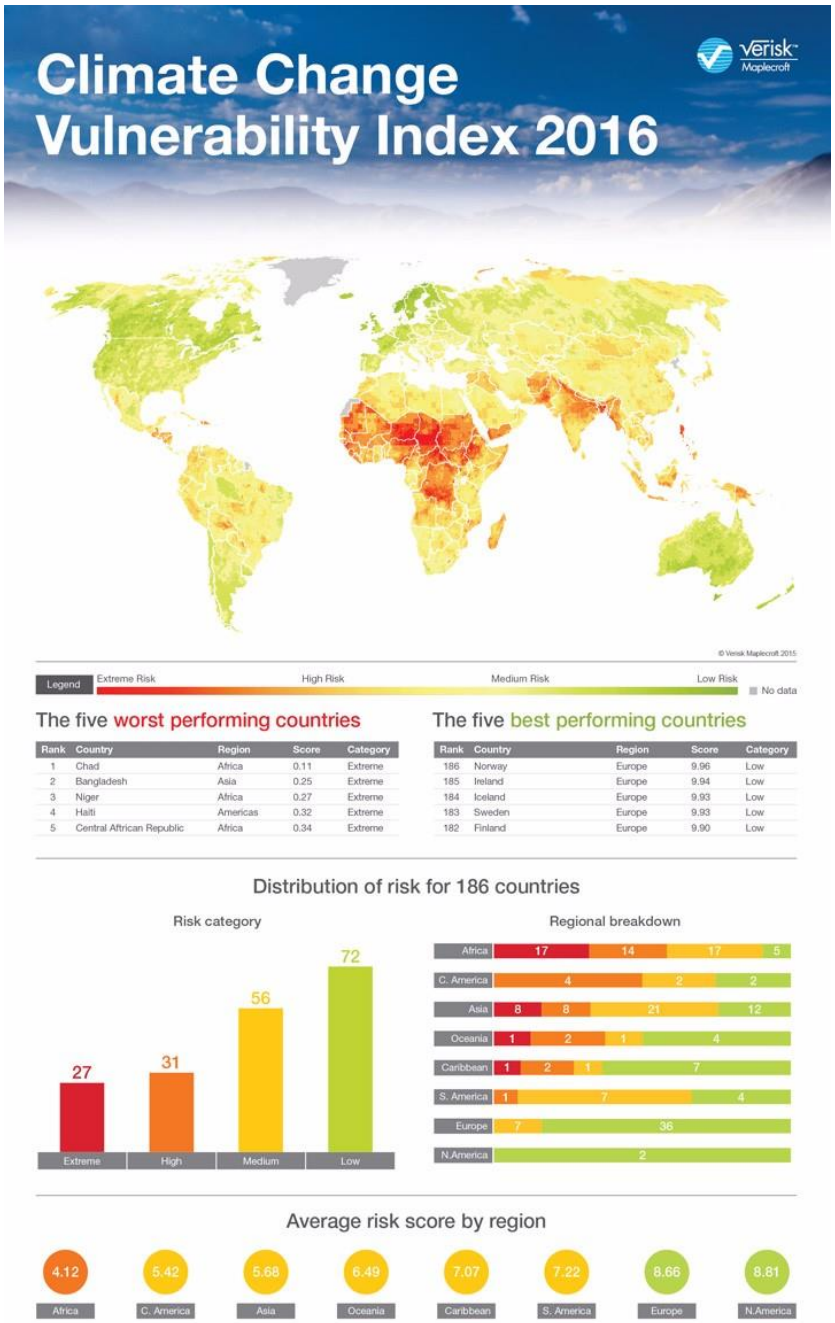
- Next, ask them to form a scale of the countries that they think will be the most affected by climate change. They will do this by standing in a line ranging from the country they think will be the most affected to the country they think will not be too affected. Write the range of countries on a flipchart or board so that everybody can see it. Next, ask them to form a scale of countries that contribute the most to greenhouse gases emissions. Record the scale under the previous one so that you can compare them.

- Ask the participants to look at the two scale and try to compare them. Explain that global warming is going to affect everyone, this is true, but the extent to which such effects will be felt around the world is different and to a certain degree extremely unfair. **Countries who have the lowest emissions of CO2 will be the most affected, while the largest contributors to**

greenhouse gases emission will not be so affected. China, the United States of America, the European Union, India and the Russian Federation are the top contributors to CO2 emissions. However, it is developing countries such as **Bangladesh, Sudan or Tuvalu, the Caribbean region and the African continent** which will be most affected by climate change.

- Show the participants the graph below the conclusion of which is that **those who contribute the least to emissions will be the most impacted by the effects of these emissions. Also show them the vulnerability index which scores the vulnerability of countries around the world.**

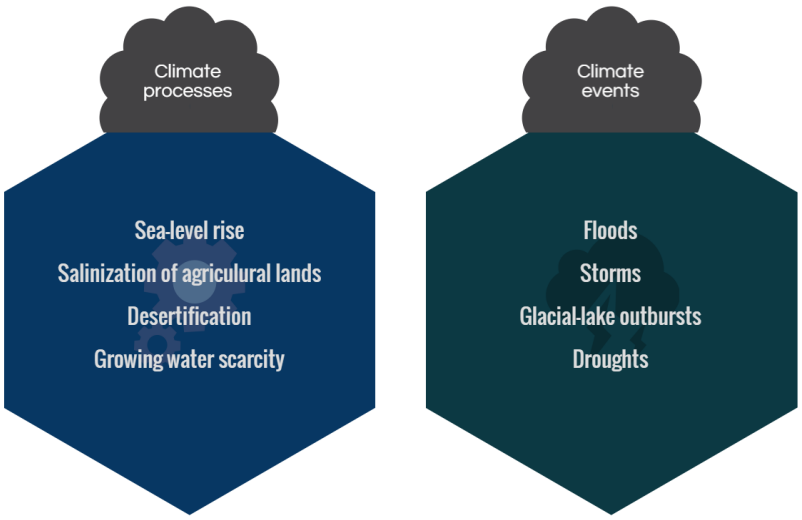




- Ask the participants how this makes them feel? Is this fair? What do you think is going to happen with the people living in the countries that will be the most affected? Lead an open discussion. The discussion will not probably too optimistic and for good reason. The biggest problem is that the challenges that climate change brings for these countries adds to the problems already existing: poverty, political instability, violations of human rights. Climate change will add an extra burden on the these countries and regions, while the main contributors won't be so affected and will probably continue doing "business as usual". One effect of this might be the forced migration of people from these areas.

Unit 3.4. Migration caused by climate change - 45 minutes

- Start by asking participants what migration is? Ask them to record their answers on post-its and invite them to stick them on the wall once they have finished. Go through their answers without making any comments. Play this video (Video 1) but stop it at 0:45 seconds. Ask participants to think of what are the causes of migration and write each one on a separate post-it. While they are doing this, draw two columns on the flipchart/board with these headings: Column 1 - Push factors, Column 2 - Pull factors. Without explaining what they mean, ask participants to post each post under the column they think is right. Once they have finished, play the rest of the video.
- Give participants the chance to check if they put their causes under the right column according to the information they received in the movie and to change the column if necessary. Next discuss any questions they have related to the movie, if there are things that surprised them and if there is something new about migration that they found out.
- Continue by explaining the connection between climate change and migration. There is no doubt that the environment, climate change and migration are interconnected. For years we have seen how human beings and the environment they live in depend on each other. Just as humans have an impact on how the environment evolves, the environment has an impact on human lives. Climate change is adding a new dimension to this relationship.
- The available scientific evidence which we can read in the latest assessment report of the IPCC, draws a simple yet hardly quantifiable conclusion: **on current predictions the "carrying capacity" of large parts of the world will be compromised by climate change.** Exactly how and to what extent, it is impossible to say.
- Show the participants Picture 1 and explain that the meteorological impact of climate change can be divided into two distinct drivers of migration.



- But non-climate drivers, such as government policy, population growth and community-level resilience to natural disaster, are also important. All contribute to the degree of vulnerability people experience. Explain the impact of such drivers using the following exercise: ask participants to divide in groups of 3-4 people. Give each group a copy of the comic "Syria's Climate Conflict" written by Audrey Quin (Annex 1) and ask them to put the pictures in the right

order. Given them about 10 minutes to complete this task. Check to see if the order is right, then ask them to read the story in their group.

- Start a discussion on the concept of vulnerability and how climate drivers add to non-climate drivers to burden even more already vulnerable groups. Highlight the fact that while **environmental migration** is mostly seen as **a failure of adaptation and a worst case scenario**, it can also be **a successful adaptation strategy**. In cases of extreme vulnerability of a human community, it represents a logical and legitimate livelihood diversification which has been used for millennia and is likely to increase in the future. Migration can help reduce risk to lives, livelihoods and ecosystems, contribute to income diversification and enhance overall capacity of households and communities to cope with the adverse effects of environmental and climate change.
- Discuss with the group about the fact that the impact of climate change will not be the same everywhere. It depends on the physical conditions and the capacity to adapt of countries and communities concerned. The most vulnerable are the least developed countries and countries with particularly susceptible geographies, such as small island states, as well as economically and socially marginalized groups within the affected communities – the poor, the elderly, women and children. Migration, however, is a coping strategy that is not available to everyone as it depends on resources, information and other social and personal factors.
- According to the International Organization for Migration, there are no reliable estimates of migration caused by climate change, but **it is evident that gradual and sudden environmental changes are already resulting in substantial population movements**. In 2008, 20 million persons have been displaced by extreme weather events, compared to 4.6 million internally displaced by conflict and violence over the same period. Gradual changes in the environment tend to have an even greater impact on the movement of people than extreme events. For instance, over the last thirty years, twice as many people have been affected by droughts as by storms (1.6 billion compared with approx 718m), which is particularly dangerous since it increases the risk of hunger and the breakdown of food systems. Future forecasts vary from 25 million to 1 billion environmental migrants by 2050, moving either within their countries or across borders, on a permanent or temporary basis, with 200 million being the most widely cited estimate. This figure equals the current estimate of international migrants worldwide.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=lOZmqIwqur4
- **Annex 1**: http://grist.org/climate-energy/syrias-climate-fueled-conflict-in-one-stunning-comic-strip/

Unit 3.5. A gender perspective on climate change - 30 minutes

- Start this session by asking participants to "vote with their feet" once again. Divide the room in three imaginary areas and ask participants to go in the area represented by the statement best describes their opinion. **Area 1** - *Men will be more affected by climate change than women*; **Area 2** - *Climate change will affect men and women to the same extent*; **Area 3** - *Women will be more affected by climate change than men.* Don't be surprised if most people go to area 2, especially if it the first time you are talking to them about gender and climate change. Most of the

participants to the online training course also thought initially that climate change will affect men and women to the same extent.

- The truth is that there is no right or wrong answer. It is rather a matter of perception. The key to understanding this is again dependant on the concept of "vulnerability". Indeed this is crucial to understanding the gender perspective of migration and why reports say that women will be more affected by climate change than men.
- Ask participants how they would define the concept of vulnerability in general. Explain that when we talk about climate change, vulnerability refers to how much a person is exposed to the negative effects the changes in climate will bring and to that person's ability to prepare for these effects or adapt to them. So why are the gender perspectives on climate change becoming a growing issue of concern? It is simple: women are more vulnerable than men for a variety of reasons.
- Divide them in group of 3-4 people and ask them to think of reasons why women are more vulnerable than men. Highlight the fact that they should think to other countries on other continents too and not just to the realities of their own countries. Ask them to prepare a flipchart with their conclusions. Once they are ready invite each group to present its conclusions to the rest of the participants.
- After all the groups have presented, show them the picture below and explain that these are the main factors contributing to women being more vulnerable to climate change[1].

- [1] Sources of the data on the info graphic: unwomen.org/focus-areas/climate-change-and-the-environment/facts-and-figures/; unwomen.org/the-united-nations-conference-on-sustainable-development-rio20/fact-and-figures/; unifem.org/gender_issues/women_poverty_economics/;
UN WomenWatch: www.un.org/womenwatch - Fact Sheet - Women, Gender Equality and Climate Change

- In the end, debrief the session. You could start like this: *What do you think of these facts? Do you think there are any solutions to improve this situation? Don't forget that the effects of climate change will be the same for men and women but what is different is their ability to prepare for and adapt to these changes.* We can all do something, whether you are a man or a woman.

Unit 4: My role in climate change

Unit title	My role in climate change
Unit structure	4.1. Are facts enough to convince you to change something - 15 minutes 4.2. Fingerprints, footprints and carbon - 30 minutes 4.3. Enough ENERGY to do something? - 30 minutes 4.4. Food - production, consumption and waste - 120 minutes 4.5. You are in it too - 30 minutes
Contents	• climate footprint - individuals, houses, schools • patterns of consumption • renewable energies • ways to take action: speak, write, experiment, change, inspire
Learning outcomes	⌛ identify at least three ways of reducing your climate footprint ⌛ be more aware of waste and find at least two ways of preventing it ⌛ know more about renewable energies, where and how it can be used ⌛ change your habits for two days and become more aware of what effect it would have on the Earth if everybody did what you did ⌛ commit to at least one way to take action against climate change
Course objective	➢ develop the participants' knowledge and competences in key concepts of climate change and sustainability ➢ explore the causes and effect of climate change

Unit 4.1 Are facts enough to convince you to change something? - 15 minutes

- You might be surprised (or not) to find out that many people don't believe that climate change is actually real. For some, no matter how many scientific arguments there are, climate change is just a hoax. This kind of attitude has an incredibly negative impact on the way we behave and act because it gives humans, governments and companies the most convenient excuse to continue doing things and living their lives the same way. This is why we suggest that you start this session by asking participants how much they think climate change is for real and if they think it is going to affect them. Ask them to reflect on this before continuing the discussion.
- Next, use this video (Video 1) to remind participants (if you went through the previous session already) or to shortly go through the pile of evidence on climate change. After you have played the video, ask the participants why they think that even when shown this amount of evidence, people still believe that climate change is not real. Mark their answers on the flipchart or a board. Explain that throughout the previous units you have seen the facts, you have reviewed them now and you have probably explained them many times in your circle of relatives and friends, but does it change anything? Does knowing the facts mean you choose to believe them and act on them? Why are the still people who don't believe in climate change?

- Well, the human mind is a very tricky and complex mechanism but at the same time it uses very rudimentary tools when it comes to decision making. The problem is that climate change possesses NONE of the characteristics that make our mind pay attention and trigger an action or a behaviour. Invite participants to have a look at how our minds work and why we fail to see danger when it comes to climate change by watching this video (Video 2).
- After watching this video, remind the participants that it is useful to understand how the human mind works and how we make decisions, because the future of our planet is all about the decision we are taking now.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=ffjIyms1BX4
- **Video 2:** https://www.youtube.com/watch?v=y2euBvdP28c

Unit 4.2. Fingerprints, footprints and carbon - 30 minutes

- Show participants the image of the footprints and ask them to brainstorm about the connection between the image and climate change. Some of them might have heard of the term carbon footprint. If so, ask them to briefly explain what it is.
- Explain that in 2010, the emissions of carbon dioxide or CO2 accounted for more than 65% of the global emissions of gas. if you went through the previous units, they also looked at the industries and activities that produce the largest amounts of CO2. Explain that now it is time to "look at the man/woman in the mirror" and find out how much CO2 our lifestyle, our choices and we as humans produce. The fancy term for this is "carbon footprint" and it is defined as " the total set of greenhouse gas emissions caused by an [individual, event, organisation, product] expressed as CO2 emissions. " Play this video (Video 1) which explains the concept.
- Explain that inevitably, in going about our daily lives —sheltering our families, heating our homes, commuting, eating — each of us contributes to the greenhouse gas emissions that are causing climate change. But just how much are we contributing? Show participants some carbon footprint calculators (you could use this one). Ask them to form pairs and use their phones to compute each other's carbon footprint, then write the value on a post it. Make a top of the carbon footprints and ask everybody to come and have a look at time, highlighting the activities that add the most to a big carbon footprint (such as traveling by plane).
- Explain that becoming aware of the amount of carbon you produce through your lifestyles, consumption and choices is the first steps towards trying to change something and playing a positive role in protecting the climate.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=8q7_aV8eLUE
- **Carbon footprint calculator:** http://www.cfcalc.com/

Unit 4.3. Enough ENERGY to do something? - 30 minutes

- Start by reminding the participants that the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global greenhouse gas emissions. It amounts for 25% of the global greenhouse gas emissions as the top contributing industry. Heating our homes is often our largest use of household energy. When our heating bills arrive each winter we are reminded of the amount of energy it takes to keep warm. Homes that heat with oil or natural gas currently have a larger carbon footprint. We also use a lot of electricity to generate cold. Cold is quietly becoming a part of 21st-century life, certainly in advanced economies: people expect air conditioning to make homes, offices and cars comfortable (and many cities habitable); most food in the developed world is chilled or frozen; medicines, including vaccines, need refrigeration; industries such as steel, chemicals and plastics depend on cooling; deprived of cold, data centers – and the internet – would collapse in minutes. So it is extremely important to look at the sources we use to generate electricity.
- Ask every participant to make a list of the things they do or need that requires the need of electricity. Discuss everybody's list and together try to find solutions for reducing the use of electricity. Ask participants to think in terms of priority and needs not comfort and wishes. Next discuss some ideas about what could be done: start with small steps and small changes in your home:
- ***Heat and cool smartly*** - If it's cold put on a sweater and turn down the thermostat by one degree. When you go to bed at night or leave on vacation turn it down another three or four degrees. If your feet are cold your body will feel cold too. By placing area rugs on cold floors you may be less likely to turn up the thermostat. Simple steps like changing air filters regularly, properly using a programmable thermostat, and having your heating and cooling equipment maintained annually can save energy and increase comfort, while helping to protect the environment.
- ***Change five lights*** - Replace your five most frequently used light fixtures or the lightbulbs in them with ENERGY STAR® qualified products. ENERGY STAR lighting provides bright, warm light, generates 75% less heat, uses about 75% less energy than standard lighting, and lasts from 10 to 50 times longer.
- ***Look for ENERGY STAR labeled products -*** When buying new products for your home, look for ENERGY STAR label to help you make the most energy-efficient decision. The ENERGY STAR label represents a level that any environmentally conscious manufacturer wants to meet. The EU ENERGY STAR programme follows an Agreement between the European Community (EU) and the Government of the US to co-ordinate energy labeling of office equipment. You can find the ENERGY STAR label on a lot of products in the EU, including appliances, lighting, heating and cooling equipment, electronics, and office equipment. Have a look on this EU database to see which products can receive this label and find out if the products you are using have the ENERGY STAR label.
- ***Seal and insulate your home -*** Reduce air leaks and stop drafts by using caulk, weather stripping, and insulation to seal your home's envelope and add more insulation to your attic to block out heat and cold. A knowledgeable homeowner or skilled contractor can save up to 20% on heating and cooling costs and significantly enhance home comfort with comprehensive sealing and insulating measures.
- ***Use water efficiently -*** It takes lots of energy to pump, treat, and heat water, so saving water reduces greenhouse gas emissions. Saving water around the home is simple. Pursue simple water-saving actions such as not letting the water run while shaving or brushing teeth and save

money while conserving water by using products with the European Water Label. Repair all toilet and faucet leaks right away. Running your dishwasher only with a full load can save 45.3 kg of carbon dioxide per year. Be smart when irrigating your lawn or landscape. Only use water when needed, and do it during the coolest part of the day; early morning is best.

Unit 4.4. Food production, consumption and waste - 120 minutes

- You could start this session by doing an experiential learning activity. The activity we suggest is about water, not food, but water is even more important when it comes to understanding the limited nature of resources and the impact of waste. The activity we suggest is called "**Waterdrops**" and you can find it in the manual on human rights education for children, produced by the Council of Europe, called Compasito (see Activity 1 in the online resources). Don't worry, the activity is engaging and complex enough to do it with grown-ups.
- After doing this activity, introduce the context of the session: in 2010, **24% of the total amount of greenhouse gas emission came from Agriculture, Forestry and Other Land Use** . Greenhouse gas emissions from this sector come mostly from the cultivation of crops and livestock, and deforestation. Food production and consumption are large contributors to greenhouse gas emissions. The release of **methane** (a major component of cows and sheep digestive track which they release in the atmosphere) and **nitrous oxide** (from manure, and urine from farmed animals) into the atmosphere are both contributory factors. **This is why, when shopping , you should consider these three factors:**

- Ask participants is they know what the term "**food miles**" means? If they don't, then ask them to guess. Then explain that the term food miles is often used to describe the potential greenhouse gas impact of agricultural products. Generally speaking locally produced foods are associated with fewer food miles. Foods that arrive by air have a much higher carbon footprint than those that arrive by ship. Likewise produce that has been grown in heated greenhouses also has a high carbon footprint meat and dairy products have high carbon footprints because of the methane produced by cattle and deforestation to provide grazing land. This is why they should always consider the three principles above before deciding to buy something.
- Next, ask the participants to estimate how much food is wasted at world level: half of it? One third? 10%? Don't give them the answer but ask them to watch this video (Video 1) to find out the answer and to learn more about food waste.
- Explain that surprisingly the easiest way to reduce greenhouse gas emissions associated with our food supply isn't watching what we consume **instead it's reducing what we don't consume**. **Around 88 million tonnes of food are wasted annually in the EU**, with associated costs estimated at 143 billion euros (FUSIONS, 2016). The sectors contributing the most to food

waste are households (47 million tonnes ± 4 million tonnes) and processing (17 million tonnes ± 13 million tonnes). These two sectors account for 72 percent of EU food waste. Methane is also emitted when waste food decays in the landfills so discarding food makes total emissions in the production and consumption cycle even worse. We tend to take our food for granted in the developed world. Since food is so plentiful, we aren't aware of the tremendous amount that's wasted and the impact that this has on world hunger, political stability, the environment, and climate change. Yet when it comes to looking for ways to curb greenhouse gas emissions, reducing food wastage is a relatively easy solution. It doesn't require any new technology, just more efficient use of what we already have.

- Ask participants to get in group of 3-4 people and come up with ideas for reducing food waste. Give them about 15 minutes to finish this task then invite them to present their ideas.
- In case they did not mention these ideas, you can add them as a conclusion.
- **Eat food that is produced locally**. Go to farmers' markets or look for small shops where people sell produce they grew and harvested themselves. If you live in the city, there are plenty of suppliers that deliver locally produced food to big cities, just look for them online.
- **Plant your own garden** if you have this possibility, or start a small apartment garden. It does not have to be something big, but ensuring even a small percentage of your food is a step forward. You don't need much to start a garden and there is a lot of information available online.
- **Eat less meat, eggs and dairy products** as the production of these foods releases the highest amounts of greenhouse gases.
- **Shop smart.** Plan meals, use grocery lists, and avoid impulse buys. This way, you're less likely to buy things you don't need and that you're unlikely to actually consume. Buy items only when you have a plan for using them, and wait until perishables are all used up before buying more. There are even apps you can use to plan your meals and shopping: http://www.thekitchn.com/5-online-meal-and-menu-pl...
- **Accept that fruit and vegetables can be top quality and delicious even if it has a slight imperfection in appearance.** Many fruits and vegetables are thrown away because their size, shape, or colours don't quite match what we think these items "should" look like. But for the most part these items are perfectly good to eat, and buying them at a farmer's market or the grocery store helps use up food that might otherwise be tossed.
- **Eat your leftovers and feed food that is not suitable for human consumption to animals.**
- **Bring home the meals that you don't finish in restaurants.**
- **Be green in your yard.** Composting your food and yard waste reduces the amount of garbage that you send to landfills and reduces greenhouse gas emissions.

Online resources:

- **Activity 1:** http://www.eycb.coe.int/compasito/chapter_4/4_32.asp
- **Video 1:** https://www.youtube.com/watch?v=IoCVrkcaH6Q

Unit 4.5. You are in it too - 30 minutes

- We know that when you ask young people what they can do about climate change they give the most stereotypical answers such as: use your car less and take your bike, use less electricity or consume local food. But, in fact this kind of small individual actions do not help reduce climate change unless they become a lifestyle for an entire generation. This is why, apart from reducing our carbon footprint, the most efficient way to use our time is in actions that raise awareness and mainstream climate change in policies, regulations and laws. Explain this to you participants, then ask them to watch this video (Video 1), in which top climate scientist talk about what we as individuals could do to reduce climate change.
- Explain that we need to combine **our creativity** with **our resources** and make **climate change sustainable**. Climate change should not be something that you talk about at a seminar for a week or during an online training course for eight weeks and then forget about it. It is something that should always be in our minds when we make decisions. It is not just about personal decisions but also decisions that concern our companies, our schools, our communities, institutions and our policies. Therefore, in order to mainstream climate change, we need to lead by example and engage with our families, friends, colleagues, governments, be an active citizen, write to MPs and to decision makers.
- Here are some ideas and examples of inspiring stories of people committed to stop climate change:
- **The story of David Saddington** - Influencing UK government policy, establishing his own social enterprise and fronting a media campaign that reached over 3 million people are just a few of David's achievements as a climate change activist since being impacted by a stark reminder of climate change as a teenager. From a meeting with then Prime Minister Tony Blair at 10 Downing Street, he discussed the implementation of climate change on the national curriculum. Climate change is now an essential part of youth education in UK and he has pushed to expand these education reforms worldwide. Watch this short talk (Talk 1) he gives, to find out more about his activity. (Turn on the English subtitles to understand better).
- Start a **"different"campaign** using the website of DONATION, where people can start their own campaign for free and ask others to donate an action for a healthier, happier and more sustainable world instead of just giving cash. In May, the "doers of the month" were Andy and Annie who started a 1,500 mile cycle tour across France, visiting all of the Euro2016 football host cities along the way, but rather than asking for donations of money towards a particular charity, the convinced people to pledge to take action to support environmental and social causes! Their action led to 122 pledges, like the one made by Celia Smith: "I will try not to buy packaged products and buy loose fruit and vegetables between 3rd June and 1st August". By doing so, she will save 18kg of CO_2.

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=o1kAEog4gu0
- **Talk 1:** https://www.youtube.com/watch?v=7vnzKPq390Q

Unit 5: Climate change at high level

Unit title	Climate change at high level
Unit structure	5.1. Existing structures in today's world to combat climate change - 45 minutes 5.2. COP 21 - what happened there? - 50 minutes 5.3. Sustainable Development Goals - one level higher - 30 minutes 5.4. Human rights and climate change - 90 minutes 5.5. The Council of Europe and climate change - 45 minutes
Contents	• third generation rights and SDGs • COP 21 results and commitments • national policies and my country commitments • the Council of Europe and youth work
Learning outcomes	⌛ be able to explain what are third generation rights and what are the SDGs ⌛ identify the SDGs the achievement of which will be made difficult by climate changes ⌛ be more aware of the binding nature of international agreements and how they are put into practice in your country ⌛ feel more motivated to put pressure on your country institutions ⌛ become more aware of the youth work of the Council of Europe
Course objective	• explore the causes and effects of climate change

Unit 5.1. Existing structures in today's world to combat climate change - 45 minutes

- Start by asking the participants to think of the environmental institutions they know exist in their towns or countries. If you are working with an international group, ask them to form national groups. If not, ask them to make groups of 2-3 people and make a list of the institutions and, if they know, their responsibilities. They could use the internet to do some research. Create a common list.
- Explain that human life, at its core, has always been characterized by founding institutions as a means of organization of groups, societies, countries, continents and nations. **We are social creatures** who need the creation of laws and organization for the sake of our cultural rules, social status, tradition and overall organization of our shared lives on our planet. Think for example about the **10 commandments** and how they influence your life in today's world. When focusing on climate change, a global issue for any living organism on the planet, we can be happy that this need for institutions is a trait that comes with being human. Although the existing institutions have been criticized a lot today, when it comes to combating climate change it has to be said that **it is still better that they exist, then not existing at all.**

- Ask participants to think of international institutions that combat climate change. Explain that the most widespread international democratic institution is of course **the United Nations (UN)**. Founded in a world that was torn apart by war, 51 countries came together in 1945 with the main aim to prevent the devastating possibility of another similar event like World War 1 & 2. **Instead of competition, the UN aimed to promote international cooperation** and has succeeded - from a diplomatic point of view - in that mission a lot. Today **195 countries are members of the UN** and together they cover almost all the living people on our planet, which is pretty amazing! A clear result of their promotion of cooperation and its success is the independence more than 80 colonies attained since the creation of the UN.
- Ask the groups to do a little bit of research on the UN and write down the most interesting findings related to UN's work on climate change. Make sure you highlight the following: t**he UN has five principal organs**: the General Assembly, the main deliberative assembly; the Security Council, for deciding certain resolutions for peace and security; the Economic and Social Council (ECOSOC) for promoting international economic and social co-operation and development; the Secretariat, for providing studies, information, and facilities needed by the UN; the International Court of Justice ,the primary judicial organ. The main UN system agencies include the World Bank Group, the World Health Organization, the World Food Programme, UNESCO, UNICEF and of course - most relevant for us -**UNEP the United Nations Environmental Programme that created the UNFCCC, but indirectly also the IPCC.**

United Nations
Framework Convention on
Climate Change

- The UNFCCC or United Nations Framework Convention on Climate Change is the **leading platform** within the UN to work on targets to reduce the negative impact of climate change. Every year the UNFCCC organizes a COP, or **Conference Of the Parties** that are involved within the UN to work on combating climate change. If you would like to know more about the creation of the COP (and its lack of real action through history), you can check out this article Thomas Gits wrote for the European Year for Development.
- End this session by asking participants to research the ways UN's work is reflected in the policies and programmes of their own countries.

Unit 5.2. COP 21 - what happened there? - 50 minutes

- Start this session by asking participants what they know about COP 21. Why is it called like this? When did it take place? Who participated there? What happened?
- Next play this video (Video 1) which explains the history of the conference, what it is and what happens there. For two weeks around 25.000 negotiators, politicians, scientist, activists, journalists, ambassadors, youth workers, students, and global leaders came together to discuss the next steps for climate action. Many thought it would end up in another fiasco like COP15 in Copenhagen, but **it turned out better than expected!** As explained in the video, a Conference of the Parties trying to combat climate change globally through diplomatic cooperation is not that easy as we would want it to be. Finding a diplomatic solution to such a complex phenomenon, through resolutions, treaties, policies and legal proceedings might be the most difficult task for the human species! Although the Paris Agreement is not ambitious enough for many indigenous

communities, 'developing countries', civil society organizations and activist groups, due to the focus on 2°C, instead of 1,5°C. It is however the first global treaty on climate change, with legal binding mechanisms, which in itself is a historical 'tipping point'.

- Ask the participants to slip in small group and give each group a set of questions and answers. Their task is to match the questions with the answers in less than 2 minutes. See questions and answers below:

What is The Paris Agreement?	An enduring, legally binding treaty on climate action which contains emission reduction commitments from 187 countries starting in 2020. The Paris Agreement will enter into force once 55 countries covering 55% of global emissions have acceded to it.
What is a COP Decision?	The COP21 agreed a set of decisions with immediate effect to accelerate climate action and to prepare for the implementation of the Paris Agreement once it enters into force (or in other words, once it's been signed).
Beyond the UNFCCC - what is the Paris Action Agenda?	Alongside the formal agreements at COP21 the large number of commitments for additional action to reduce emissions and increase resilience were made by countries, regions, cities, investors, and companies.

- Next, give each group two or three different articles of the Paris text (Text 1) and ask them to read the articles and decide for each one: what is good about the articles, what enforcing mechanisms are there and what could have been improved. Give each group about 20 minutes to finish this task, then invite all the groups to present their conclusion. This activity will give the participants the chance to interact with the text of the Paris Agreement and critically analyse it.
- Explain that the Paris Outcome is a **turning point** for action to limit climate change below dangerous levels. It signals the end of business as usual for the energy industries. Future investment will need to be compatible with a zero carbon world. The Paris Agreement establishes an enduring, binding and transparent legal regime **where all countries make commitments to reduce greenhouse gas emissions** and manage the impacts of climate change. It's goal is to **shape climate action for decades into the future.** The “ambition mechanism” in the Paris Agreement means that countries will need to review and increase their emission reduction commitments every 5 years in order to meet the **long term goal of greenhouse gas neutrality by the second half of century.** By integrating action by regions, cities, investors and companies into the COP process the French have created **immediate momentum behind the implementation of the Paris Agreement in the real economy.**

- Remind the participants that every country was required to submit an Intended National Determined Contribution. The list of INDCs can be found here (List 1) for all the countries that took part to COP 21. Remind them that it is our responsibility as citizens of our countries to hold our national governments and institutions accountable for what they committed to.
- On the pessimistic side the Paris text recognises the need to cap temperature rises at 1.5℃. However, **the language doesn't match national pledges for action.** These pledges are so weak that a dangerous 3 or 4 degrees warming is likely. The agreement also notes "the importance for some of the concept of **"climate justice"**, when taking action to address climate change." **But the substance of agreement falls far short of what social movements mean by the term.** One of the main issues that has been raised is **the absence of reference to fossil fuels in the Paris Agreement.** The agreement aims for "balance between anthropogenic emissions by sources and removals by sinks" after 2050. Reference to reducing fossil fuels, or even "decarbonisation" would have been better. **The vague language of "balance" between (fossil fuel) "sources" and "sinks" opens up the possibility for ecological loopholes, such as "forest carbon offsets" and technologies NGOs oppose such as "clean coal" and nuclear energy.**

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=oo5ca1dMbEc
- **Text 1:** http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf
- **List 1:** http://www4.unfccc.int/Submissions/INDC/Submission%20Pages/submissions.aspx

Unit 5.3. Sustainable Development Goals - one level higher - 30 minutes

- Start this session by giving each participant either a piece of paper with one number from 1 to 17 or the text of one SDG (if you have a large enough group use all the SDGs, if not you can select only some of them). Ask them to stick the paper on their chest and then try to match the numbers with texts of the SDGs. For instance, 1 should form a pair with "***End poverty*** *in all its forms everywhere*". For a full list of the SDGs see Annex 1 at the end of this unit. Once the participants think they are ready, ask them to form a circle and explain that actually it does not matter what number each SDG has. What really matters is that they are together, like in the circle and that they will all be achieved in the target period.
- Next, ask the participants to watch this short video (Video 1) which briefly presents the 17 goals.
- Explain that **The Sustainable Development Goals or SDGs are a collaborative product of the United Nations**. In simple terms they are **ambitious global targets being set for the world to focus on in the next coming 15 years.** All the work being done by the UN can be tracked down to one of the 17 SDGs. The sustainable development goals (SDGs) are a new, **universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies over the next 15 years. T**he SDGs follow and expand on the millennium development goals (MDGs), which were agreed by governments in 2001 and are due to expire at the end of this year.

- So what are the 17 SDGs, you can see them all here in Annex 1:

1) **End poverty** in all its forms everywhere
2) **End hunger,** achieve food security and improved nutrition, and promote sustainable agriculture
3) **Ensure healthy lives** and promote wellbeing for all at all ages
4) **Ensure inclusive and equitable quality education** and promote lifelong learning opportunities for all
5) **Achieve gender equality** and empower all women and girls
6) **Ensure availability and sustainable management of water** and sanitation for all
7) **Ensure access to** affordable, reliable, sustainable and modern **energy for all**
8) Promote sustained, inclusive and sustainable economic growth, full and productive employment, and **decent work for all**
9) **Build resilient infrastructure**, promote inclusive and sustainable industrialisation, and foster innovation
10) **Reduce inequality** within and among countries
11) **Make cities and human settlements** inclusive, safe, **resilient and sustainable**
12) Ensure **sustainable consumption and production patterns**
13) **Take urgent action to combat climate change** and its impacts (taking note of agreements made by the UNFCCC forum)
14) **Conserve and sustainably use the oceans, seas and marine resources** for sustainable development
15) **Protect, restore and promote sustainable use** of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss
16) **Promote peaceful and inclusive societies** for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17) Strengthen the means of implementation and **revitalise the global partnership for sustainable development**

- There is also a nice platform with a lot of games on the SDGs that participants could use to learn more about the goals.
- Finally, ask the participants if they think these goals are realistic and what it would take to achieve them. In the end, remind them that **without THEM those goals cannot be reached.** Within your youth organization, local group or even sport team you can make a difference! Advocate these goals, but more importantly **use them as a tool to urge your governments to take action. Remind them of what they pledged for when they signed the SDGs!**

Online resources:

- **Video 1:** https://www.youtube.com/watch?v=5G0ndS3uRdo
- **Platform with games on sustainability:** http://www.games4sustainability.org/gamepedia/

Unit 5.4. Human rights and climate change - 90 minutes

- Talking about human rights and climate change could cover a one year training course and it would not be over, this is why in this session the focus is on understanding what human rights

are and how they are connected to climate change. If you want to go deeper in this topic we recommend a great publication: the Council of Europe's Manual on Human Rights and the Environment (Manual 1).

- We suggest you start this session with a short activity from COE's Manual on Human Rights Education for Children - Compasito. The activity is called "Most important for whom" (Activity 1) and it gives a really good introduction on the concept of human rights. Highlight the main characteristics of human rights: universal, inter-dependable and inter-connected and explain that the same is valid for the individuals living on this planet. We are all inter-connected and inter-dependent which means that the damage we do to the Earth affects others and vice-versa.
- After you have finished the activity, play this video (Video 1) which gives a nice illustrated history of how our human rights have evolved.
- Explain that human rights are divided into three generations of rights. The first generation of human rights focus on freedom and participation in political life. They are also knows as blue rights and are mainly civil and political rights such as: the right to life, equality before the law, freedom of speech, of religion, voting rights and the right to a fair trial. Second generation rights are social, economic and cultural rights. They deal with equality and citizenship. They include the right to be employed, the right to housing, proper health care, social security or right to education. The third generation of rights refers to so called collective rights which go beyond every individual's civil and social rights and refer to the rights human have together as a species. This generation includes the right to a healthy environment, to natural resources and sustainability. Although we might be tempted to say that third generation rights are the group of human rights that is connected to climate change the most, we should always remember that global warming is a threat the right to life itself.
- To help you participants understand better the third generation rights show them this video (Video 2) then start an open discussion on it.

Online resources:

- **Manual 1:** http://www.echr.coe.int/LibraryDocs/DH_DEV_Manual_Environment_Eng.pdf
- **Activity 1**: http://www.eycb.coe.int/compasito/chapter_4/4_17.asp
- **Video 1:** https://www.youtube.com/watch?v=oh3BbLk5UIQ
- **Video 2:** https://www.youtube.com/watch?v=AEO6xRpo024

Unit 5.5. The Council of Europe and climate change - 45 minutes

- Start this session with a quiz on the Council of Europe. The activity works like this: you read a multi-choice question about the COE and divide the room into three areas (this depends on the number of possible answers participants can choose from) representing answers a, b or c. People think about the answer then they have to move to the area which represents their answer. You can get the questions for your quiz from here (Quiz 1).
- After you finish the quiz, play this video (Video 1) to give participants a general perspective on the Council of Europe and its work.

- Finally explain the position of the COE on the environment and climate change. This section (Environment in Compass) in the COE Manual on Human Rights Education - Compass will help you a lot.

Online resources:

- **Quiz 1:** http://www.coe.int/en/web/about-us/quiz
- **Video 1:** https://www.youtube.com/watch?v=7SKqVzlHc9o
- **Environment in Compass:** http://www.coe.int/en/web/compass/environment

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