Educational resources on climate change

for 7th grade and up

easier materials for <sup>5th</sup> and 6<sup>th</sup> grades

## Dear Teachers,

Extreme weather events, droughts and heat waves – we are already feeling the effects of climate change caused by humans. The scientific community agrees that we must drastically curb CO2 emissions worldwide to prevent a rise in temperature of more than 1,5 degrees Celsius and the irreversible impacts which that would have on our climate system.

Yet, CO2 emissions around the world continue to rise. Movements like Fridays for Future therefore demand that governments take rapid action – but what does politics actually do for climate protection? The parties to the UN Framework Convention on Climate Change meet every year to negotiate climate action in the Conferences of the Parties (COP). In the Paris Agreement, the international community has for the first time set itself the goal to limit the global rise in temperature to well below 2 degrees Celsius; the aim is a maximum increase of 1,5 degrees Celsius. The parties to the agreement meet at annual conferences to negotiate specific steps for implementing the agreement. At the COP25 in Madrid, under the chairmanship of Chile, the guidelines for the implementation of the climate agreement will be finalised. In view of the United States' withdrawal from the Paris Agreement, questions about the binding nature of international agreements and the pursuit of climate justice have become very important. Will the main culprits of global warming also take on the most responsibility for mitigating climate change? How can economic growth be reconciled with fighting climate change? And who should be allowed to emit CO2 in future and how much?

To address these issues, Greenpeace has compiled teaching resources on protecting the climate, designed to provide you with lots of ideas for your classes and inspire your students to think, discuss and take action. Let's not forget that civic engagement and local initiatives play a vital role in the global fight against climate change.

We wish you and your students lively discussions and activities. We also welcome any feedback you may have on these materials.

Sincerely,

Your Greenpeace Team

## Background: education for sustainable development

In the autumn of 2015, the United Nations adopted the 2030 Agenda and its Sustainable Development Goals (SDGs), 17 goals for sustainable development which the global community aims to meet by 2030.

As part of this effort, the UNESCO Global Action Programme on "Education for Sustainable Development" (ESD) is anchored in the school curricula of the German states as the *Nationaler Aktionsplan Bildung für nachhaltige Entwicklung* (German National Action Plan on ESD).

Greenpeace, together with "Bündnis ZukunftsBildung" – an initiative of German non-governmental organisations active on youth and environmental issues, nature conservation, development and human rights – has contributed significantly to this process and called for the effective and systematic integration of ESD as well as the regular participation of children and young people.

Education for sustainable development aims at empowering people to understand the global effects of their own actions on other people, the environment and future generations, and to assume responsibility for advancing sustainable development. Schools play a key role in teaching relevant skills.

"Schools are responsible for enabling future generations to help shape the world they live in and create a better future. To achieve this, schools need to make sustainable development a participatory and inclusive experience, both in educational processes and everyday life."

(From the German National Action Plan on ESD)

www.bne-portal.de/en/education-sustainable-develop-ment-germany and www.greenpeace.de/bildung\_bne

### How to use these materials

These materials are designed to help you explain the global mechanisms of climate change and guide students in understanding UN climate change conferences. With a stimulating and hands-on teaching approach, you can communicate principles of sustainability, encourage your students to think and engage in discussions, and develop ideas on how they can take action themselves.

These teaching resources have been developed for grade 7 and up and are aligned with the school curricula of the German states. There are four **modules** comprising teaching tips and worksheets. The **teaching tips** provide you with method and content-related suggestions. They build on each other but can also be used independently, and they can be adapted to your individual requirements and teaching style. You can use the **worksheets** in class as they are. The teaching tips sections also have notes on preparation and follow-up, as well as solutions.

Symbols indicate **advanced tasks** for deeper understanding as well as helpful links.

Tip: Develop understanding for the causes and effects of climate change using our teaching materials "Extremwetter & Klimawandel" (Extreme Weather & Climate Change)

www.greenpeace.de > search for "Extreme Weather and Climate Change"

### **→**Modules

A Global Challenge Milestones of international climate policy	1
Mitigating Climate Change: A Matter of Negotiation? UN climate change conferences – players & positions	2
<b>Is That Fair?</b> Questions about climate justice	3
Think Globally, Act Locally Fighting climate change	4

# → Easier materials for 5<sup>th</sup> and 6<sup>th</sup> grades



Climate change concerns us all! The **simplified materials** provided are designed to help you and your younger students address the challenges of climate change at the local and personal levels

and show what we can do to promote sustainability. These materials are appropriate for grades 5 and 6, but can also be used for work with older students.

 $\rightarrow$  Symbols  $\longleftrightarrow$  advanced tasks  $\bigcirc$  link

## An idea for a climate change conference role play

These teaching suggestions can be used in a role play situation to achieve a deeper understanding of international climate negotiations.

Students take on various roles and simulate a UN climate change conference.

Players: at least 8

**Roles:** in addition to the roles listed in Worksheet 2, there are moderators, representatives of the Intergovernmental Panel on Climate Change (IPCC) and members of the media.

**Goal:** to adopt a climate agreement and achieve role-specific targets.

### →Step 1: Acquiring basic knowledge

Using Module 1, work with your students to familiarise them with the milestones of international climate policy.

### →Step 2: Role preparation

After students are given their role cards, they acquaint themselves with their roles and set themselves three targets that are relevant to their roles. They do research on the topics of the conference and review the positions of the other participants (→ Module 2).

### →Step 3: Climate negotiations

The moderators open the conference, then representatives of the IPCC introduce the topic, and then country representatives voice their demands in keynote speeches. The moderators gather all their demands by posting them on a wall newspaper, for example. These are then negotiated in various formal and informal talks. Depending on the amount of time available, one to three rounds of preliminary talks – each involving different parties – can take place. The moderators chair the negotiations. Representatives of non-governmental organisations (NGOs) are given the opportunity to present their positions in keynote speeches and/ or organise actions, holding a demonstration during the talks, for example. Members of the media follow the talks with a critical eye and ask for comments. Little by little, participants begin to modify their positions and make compromises.

### →Step 4: Adopting the agreement

The agreement is finally drafted and adopted based on the demands gathered by the moderators. Should no agreement be reached, the negotiations are declared a failure. At the end of the conference, representatives of the various countries answer questions posed by the media.



### →Climate policy

UN Climate Agreement: <a href="www.unfccc.int">www.unfccc.int</a> Climate Protection: <a href="www.act.gp/how-to-save-the-climate-guide">www.act.gp/how-to-save-the-climate-guide</a>

The Paris Agreement: <a href="https://ec.europa.eu/clima/policies/international/negotiations/paris\_en">https://ec.europa.eu/clima/policies/international/negotiations/paris\_en</a>

EU Policy: <a href="https://www.bmu.de/en/topics/cli-mate-energy/climate/eu-climate-policy">www.bmu.de/en/topics/climate-energy/climate/eu-climate-policy</a>
Alliance of Small Island States:

www.aosis.org

The Conference of Youth (COY):

www.google.com > search for "COY 14"

Climate change and development

cooperation: https://climate.nasa.gov/

news (news on climate change)

Teaching materials on climate change by Germanwatch:

www.germanwatch.org/en > Our Topics > Education for Sustainable Development Non-governmental organisations working for climate protection: www.climatenetwork.org

### →Climate change,

# environmental conservation and climate protection

Intergovernmental Panel on Climate

Change: <a href="https://www.ipcc.ch">www.ipcc.ch</a>
IPCC Special Report 2018:

www.ipcc.ch/sr15

**Potsdam Institute for Climate Impact** 

Research: www.pik-potsdam.de

**Ecological Footprint:** 

www.footprintnetwork.org www.footprintcalculator.org

The Handprint Concept:

www.handabdruck.org/index en.php www.youtube.com/watch?v=CtH6M5CX-ruU

Youth Action for Sustainability in Germany: <a href="https://youpan.de">https://youpan.de</a>
Germany – Facts & Figures:

www.umweltbundesamt.de/en > Data > Climate > Greenhouse gas emissions in Germany

www.bmu.de/en > search for "climate action in figures"



SDGs in class: <a href="www.globaleslernen.de">www.globaleslernen.de</a> > search for "Teaching the Sustainable Development Goals"

(SDG) and 2030 Agenda

→Sustainable Development Goals

Teach SDGs: www.teachsdgs.org
United Nations information page:
https://sustainabledevelopment.un.org

Sustainable Development Goals (SDG) in Germany: <a href="https://www.bmz.de/en/index.html">www.bmz.de/en/index.html</a> > Ministry > Objectives > 2030 Agenda www.2030-watch.de

Education for sustainable development in Germany: <a href="https://www.bne-portal.de">www.bne-portal.de</a> > English SDG Overview:

www.un.org/sustainabledevelopment >
Goals

"An Inconvenient Sequel: Truth to Power": Documentary about climate change with Al Gore directed by Bonni Cohen and Jon Shenk, 2017, 100 minutes. (Its prequel "An Inconvenient Truth" is available on DVD)

"Before the Flood": Documentary on the impact of climate change by Fisher Stevens and Leonardo DiCaprio, 2016, 96 minutes, www.google.com > search for "Before the flood national geographic full movie"

"We the People for The Global Goals": www.youtube.com > search for "We the People for The Global Goals"

### **U** Literature

Latif, Mojib: Climate Change: The Point of No Return, Haus Publishing, 2009 Tena, Emilio Cerdá and Xavier Labandeira (Eds.): Climate Change Policies- Global Challenges and Future Prospects, Edward Elgar Publishing Limited, 2010

# →Information available from Greenpeace

Study "Climate Change, Migration and Displacement":

www.greenpeace.de/klimamigration > scroll down for English version

Teaching materials "Extreme Weather & Climate Change":

www.greenpeace.de/bildungsmaterialien > Extreme Weather and Climate Change

Causes of climate change:

https://ec.europa.eu/clima/change/causes\_en

For more Greenpeace resources visit:

www.greenpeace.de/bildungsmaterialien

For further information see

www.greenpeace.com > act www.kids.greenpeace.de

Greenpeace is an international environmental organisation that uses non-violent direct action to protect the capacity of our planet Earth to nurture life in all its diversity. It is our goal to prevent environmental destruction, change behavioural patterns and implement solutions. Greenpeace is above party lines and completely independent of governments, political parties and industry. Some 580,000 people in Germany support Greenpeace financially, thereby making our daily work to protect the environment possible.

### **Imprint**

# **A Global Challenge**

What has been done so far to limit climate change? Where do we stand today? These teaching tips will help you and your students draft an overview of international climate policy.

### →Let images speak for themselves

The documentary "An Inconvenient Sequel: Truth to Power" addresses climate change and international climate negotiations, and is a suitable introduction to the subject. (Or you could show "An Inconvenient Truth", available on DVD.) Students can take notes while watching the film, and to make it easier, you can divide the film into sequences instead of showing it all at once. Student questions and comments are then collected and displayed around the classroom; they serve as a basis for further topic-related activities.

Trailer of "An Inconvenient Sequel: Truth to Power"

www.youtube.com > search for "An Inconvenient Sequel: Truth to Power"

"planet e." is a ZDF documentary film series on environmental topics which shows many documentaries, some of them in English: <a href="https://www.zdf.de">www.zdf.de</a> search for "planet e."

### →Climate information centre

Based on the questions and comments they wrote down while watching the film or collected during a brainstorming session, students create an "information centre" which provides information on international efforts aimed at mitigating climate change. Questions could include: What causes climate change? What is the UN? Why is fighting climate change an international concern? What responsibility does each of us have? Students think about how to organise the information centre. For example, should it be an exhibition or a blog?

 $\leftarrow \rightarrow$  Students think about how to organise the information centre, e.g. as an exhibition or a blog The information centre could be presented in the school, the city hall or the public library, where local politicians and media could be invited to attend.

Causes and consequences of climate change can be examined using our teaching material "Extreme weather & Climate change": <a href="www.greenpeace.de">www.greenpeace.de</a> > search for "Extreme Weather and Climate Change"

### →A slice of the pie

Climate change is caused by carbon dioxide (CO2) and greenhouse gases. Divide your students into groups and let them research CO2 emissions from the energy, industry, transport and agriculture sectors in Germany. Then create a pie chart, add it to the content in the climate information centre and discuss the following questions: Where does CO2 in Germany come from? What do the terms energy, industry, transport and agriculture really mean when we are talking about emissions? In what areas could and must CO2 emissions be reduced?

www.umweltbundesamt.de/en > Data > Climate > Greenhouse gas emissions in Germany

www.bmu.de/en > search for "climate action in figures"

### →A deal is a deal?

Students do research online on the United States' withdrawal from the Paris Agreement. What is the Paris Agreement and what does it involve? What role did the USA play in the negotiations? How did US President Trump communicate the American withdrawal from the agreement on 1 June 2017 (Twitter)? How did various government leaders of the signatory states, the media and representatives of civil society react? What does the decision to withdraw from the agreement mean for climate change? *Teamwork:* Students prepare 10-minute presentations for their classmates addressing these topics, with a focus on: When? Who? What? Where? Why? How? What are the consequences? *Activity:* Using Tweets from around 1 June 2017, students create an analogue Twitter Wall for the school assembly hall. The following hashtags are helpful in doing research: #parisagreement, #americafirst, #climatechange, #globalwarming.

www.unfccc.int > search for "Paris Agreement English"

←→ You could discuss the binding nature of international climate treaties with your students based on the original English text of the Paris Agreement.

### →Notes on Worksheet 1

This worksheet gives your students an overview of political, ecological and social events of the last two decades connected to international climate protection.

**Task 1:** You will find information on the Red List on the website of the German Federal Agency for Nature Conservation: <a href="https://www.bfn.de">www.bfn.de</a> > Activities > Red List

**Task 2:** Refer to → Modul 4 "Think Globally, Act Locally", for help in coming up with your own ideas for actions.

Task 3: Bayrischer Rundfunk has compiled current information on the Paris Agreement: <a href="mailto:ec.europa.eu/clima/">ec.europa.eu/clima/</a>
<a href="mailto:policies/international/negotiations/paris\_en">policies/international/negotiations/paris\_en</a>
<a href="mailto:Forthe-Paris">For the original text of the Paris Agreement see:</a>
<a href="mailto:www.unfccc.int">www.unfccc.int</a> > search for "Paris Agreement English"

Task 4: For ideas and links concerning the world climate conference see → Modul 2 "Mitigating Climate Change: A Matter of Negotiation?" and <a href="https://www.greenpeace.org/archive-international/Global/international/planet-2/re-port/2007/4/how-to-save-the-climate-pers.pdf">www.nachhaltigkeit.info</a> > search for > "UNFCCC"

# A Global Challenge

### The Earth Summit in Rio de Janeiro, Brazil

The UN Conference on Environment and Development, also known as the Earth Summit, is held in Rio de Janeiro in 1992. The Earth Summit results in the adoption of the Agenda 21 and the United Nations Framework Convention on Climate Change, among other documents. Since then, the signatory states of the UN Framework Convention on Climate Change have met annually at Conferences of the Parties (COPs) to assess process in mitigating climate change and to negotiate measures to reduce greenhouse gas emissions.

### 1992

1994

1997

2000

2008

2009

2010

2015

## The term "Ecological Footprint" is used for the first time

An Ecological Footprint measures the amount of land and water area an individual needs to maintain their lifestyle. The Ecological Footprint of the world's population today is larger than the land and water areas available. You can calculate your own footprint here: www.footprintnetwork.org

### The Kyoto Protocol

The Kyoto Protocol is adopted at the Climate Change Conference in Kyoto. It extends the UN Framework Convention on Climate Change. This agreement commits developed countries for the first time to make binding obligations to curb greenhouse gas emissions.

### **UN Millennium Summit in New York, USA**

Outcome of the summit: eight millennium goals are to be met by 2015, including the eradication of poverty and ecological sustainability.

### Alarming figures appear on the "Red List"!

1,800 scientists from 130 countries conclude that up to  $36\,\%$  of all mammals are already threatened with extinction.

→ Task 1: Make a poster that draws attention to an endangered species and shows how this is connected to global warming.

## UN Secretary General Ban Ki-moon calls for a new age of green economics

"A Green Economy is an economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities."

(As defined by the United Nations Environment Programme)

## Climate Change Conference in Copenhagen, Denmark

The goal to extend the Kyoto Protocol beyond 2012 is not achieved. However, the Copenhagen Accord, drafted by China, India, South Africa, Brazil and the USA, recognises climate change as one of the greatest challenges facing humanity and that the increase in global temperature needs to be below 2 degrees Celsius if dangerous interference with the climate system is to be prevented.

### Facebook switches to renewable energy

As part of the Unfriend Coal campaign, some 700,000 online activists call on Facebook to switch to renewables. A successful campaign: Facebook announces it will introduce measures to run its operations 100 percent on renewable energy. Convincing Facebook wasn't easy and was achieved only because many supporters were so persistent, campaigning for years.

→ Task 2: How would you convince someone to switch to renewable energy?

### **Sustainable Development Goals**

The United Nations set the Sustainable Development Goals (SDGs), 17 global goals covering sustainable ecological, economic, cultural and social development. 

www.youtube.com > search for "We the People for The Global Goals"

### Climate Change Conference in Paris, France

In the Paris Agreement, the parties to the UN Framework Convention on Climate Change agree to keep the increase in global temperature to well below two degrees Celsius. The agreement commits all parties for the first time to contribute to the reduction of greenhouse gases.

→ Task 3: To what extent does the Paris Agreement address the special situation of emerging market economies and developing countries?

### COP25 in Madrid (Spain)

Chaired by Chile, the finalisation of the Paris Rule-book will be negotiated. At the same time the UN expects more ambitious action.

→ Task 4: What were the most important outcomes of the climate change conference? Which of the issues addressed in the rulebook provoked controversy?

2019

2030

### Agenda 2030

The international community is trying to meet the Sustainable Development Goals (SDGs) by 2030. Check to see how they are doing at: <a href="https://www.sdg-tracker.org">www.sdg-tracker.org</a> and <a href="https://www.ourworldindata.org">www.ourworldindata.org</a>

## Mitigating Climate Change: A Matter of Negotiation?

2

The goal is clear: mitigate climate change. But international players at the climate conferences pursue different interests. You can use the activities described below to follow and reflect on the negotiations.

### →A press review

In a press review, students look at the events of the latest UN climate conference. Taking turns, they use different formats, such as caricatures, presentations or commentaries to summarise the news. The press review can be presented from different perspectives: from Germany's, the EU's, the USA's, or from the perspective of a youth or environmental organisation.

- $\leftrightarrow$  You could present an international press review in cooperation with your (foreign) language teaching colleagues.
- European press review: www.eurotopics.net
- International press review: www.onlinenewspapers.com
- Every UN climate conference is preceded by a "Conference of Youth" where youth networks meet, discuss and make demands: <a href="www.google.com">www.google.com</a> > search for "COY 14"

### **⇒**Fossil of the Day

The Climate Action Network (CAN) – a network of international NGOs – has been presenting a Fossil of the Day Award at the UN climate conferences since 1999. The award goes to the country doing its best to block progress. Mention of this award can be included in the press review.

www.climatenetwork.org/fossil-of-the-day

### → Mood barometer

You can get your students to engage in lively discussions by asking controversial questions, which will also allow you to gauge their mood. Possible questions: Do movements like Fridays for Future affect negotiations? Are the biggest producers of CO2 also the most active and effective when it comes to curbing climate change? Give your class two minutes to think about the question(s) and then create a mood barometer or moodboard based on their responses. *Teamwork:* Students consider the questions more closely and present their informed opinions at the next lesson. Does the overall mood of the class change following these presentations?.

### →Notes on Worksheet 2

This worksheet allows your students to explore and think about the participants, core issues and lines of conflict at UN climate conferences. By using daily newspapers and referring to the links below, students can research the positions of the parties involved.

Position EU: <a href="https://www.ec.europa.eu">www.ec.europa.eu</a> > Policies, information and services > Energy, Climate change, environment • <a href="https://www.bmub.bund.de/en">www.bmub.bund.de/en</a> > Topics > Climate/Energy > Climate

- Position USA: <a href="www.usa.gov">www.usa.gov</a> > More Topics and Services > Earth and the Environment <a href="www.brookings.edu">www.brookings.edu</a> > search for "Trump withdrawal from Paris Agreement" and "USA climate politics"
- China is championing climate change mitigation 

  www.dw.com > search for "How China is championing climate change mitigation 

  www.dw.com > search for "Climate change action in China"

  Position Brasilien: www.germanwatch.org > search for "Brazil" 

  https://climateactiontracker.org > search for "Brazil"
- Position AOSIS (Alliance of small island states, who are all similarly affected by climate change): <a href="www.aosis.org">www.aosis.org</a>
  Non-governmental organisations: The class selects a non-governmental organisation (NGO) to represent the position of civil society. NGOs that actively focus on climate change: <a href="www.climatenetwork.org">www.climatenetwork.org</a>
   Germany's Civil Society Alliance for Climate Protection 2050: <a href="www.klima-allianz.de/english">www.klima-allianz.de/english</a>

**Create an image:** After the class has researched the positions of the various players, students are given the task of finding or creating an image of one of the parties to the conference. The image should clearly symbolise that party's position. Students present their finished work to the class and explain their choice and why they decided to depict the player in this particular way.

- Your students can find information on how to use online images at: <a href="https://www.cultofpedagogy.com/online-images">www.cultofpedagogy.com/online-images</a>
- $\leftarrow \rightarrow$  Teamwork: Students can elucidate players' individual positions by writing a press release about a particular position or giving fictional interviews. A real-life statement made by the player can serve as a point of reference.

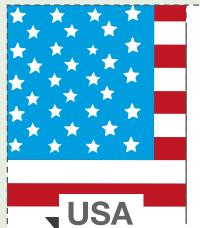
Climate champions or blockers? Once the players' positions have been clearly defined, students can examine the potential for conflict at the UN climate conference. To do this, students take on the role of the player they have chosen and answer questions in a way that reflects that player's position. Yes-no and "for and against" questions are suitable. Questions should be related to the task: Who supports the two-degree target? Who has a strategy to reduce CO2 emissions? Who makes financing available to counter the effect of climate change? "Forest conservation" is part of a successful climate change strategy – who agrees? Who actively promotes renewable energies? Is Germany a leader in climate action?

www.bundesregierung.de/Webs/Breg/EN/Homepage/ node.html > Topics > Sustainability > German Sustainable Development Strategy

# Norksheet Norksheet

## Mitigating Climate Change: A Matter of Negotiation?

The parties to the UN Framework Convention on Climate Change meet every year at a climate change conference. The aim of the conference is to negotiate legally binding measures to reduce greenhouse gas emissions for all. Not so easy, because different stakeholders have different interests. Non-governmental organisations (NGOs) are also involved.



Goals

1.

2.

3.



Goals

1.

2.

3.



Goals

J. O G...

2.

3.



Goals

1.

2

3.

AOSIS

Goals

1.

2.

3.



Goals

1.

2.

3.

### →Task 1

What are the positions of the parties involved? Do some online research to find answers to the following questions:

- ► How can CO<sub>2</sub> emissions be reduced worldwide?
- What can be done to counter the effects of global warming?
- ► How can renewable energies be promoted?

### →Task 2

Define three goals pursued by the negotiating parties at the climate conference. Write the goals on the cards.

# 3

## Is That Fair?

Developed nations produce most of the pollution that causes climate change, while developing nations are the ones that are hit the hardest by the consequences. The following activities are designed to encourage students to think about how the cost and effort of mitigating climate change is shared globally.

### →In proportion?

The Worldmapper project provides us with unfamiliar maps of the world. The size of the countries shown on the maps does not depend on their geographical area, but rather on a particular issue, in this case, carbon emissions (see map at <a href="https://www.worldmapper.org">www.worldmapper.org</a> > search for "carbon emissions"). Use this and other maps to start a discussion with your students: Are the largest producers of CO2 emissions also the most active when it comes to mitigating climate change?

### **⇒**Collecting and mapping thoughts and ideas

Create a climate justice mind map with your students based on the discussion (see above) and define the various terms used. Keywords: developed nations, developing nations, justice, climate refugees/climate migrants, climate change adaptation, Paris Agreement, human rights and children's rights. *Teamwork:* Students do research on topic clusters and present their results in a fishbowl conversation.

Information on mind mapping and fishbowl conversations: <a href="https://www.betterevaluation.org/en">www.betterevaluation.org/en</a> > search for "concept mapping" (Evaluation Option) and search for "fishbowl technique" (Evaluation Option)

### **→**Underwater

Ahead of the UN Climate Conference in Copenhagen in 2009, the then President of the Maldives held a cabinet meeting underwater in an appeal to the international community, highlighting the need to take action on climate change. Inspired by this action, students can draw attention to issues of climate justice with their own action initiative. For ideas, see → Module 4 "Think Globally, Act Locally".

- www.google.com > search for "Maledives sends climate SOS with underwater cabinet"
- Effects of climate change: climate.nasa.gov/effects

### ⇒Everybody against climate change!?

The Paris Agreement for the first time mandated all signatory states to the UN Framework on Climate Change to do their part in curbing climate change. The agreement applies to developed, emerging and developing countries. At the same time, the agreement provides for financial compensation and technical assistance to address the situation of emerging and developing countries. Your students can do research to find out what environmental and aid organisations think of the agreement: Is the treaty effective in addressing climate issues?

- Paris Agreement: <a href="https://www.unfccc.int">www.unfccc.int</a> > search for "Paris Agreement English"
- CD Climate change organisation: www.climatenetwork.org

### →Notes on Worksheet 3

This worksheet focuses on the issue of climate justice in an interview with climate change activist Selina Neirok Leem from the Marshall Islands.

**Notes on the task:** The Marshall Islands are threatened by rising sea levels. You can use our teaching materials "Extreme Weather & Climate Change" to develop understanding for the impact of climate change on people's lives around the world.

 $\bigcirc$  www.greenpeace.de > search for "Extreme Weather and Climate Change"

Climate change threatens people's means of subsistence. As a result, children on the Marshall Islands cannot enjoy their right to health and a clean environment, and sometimes, not even their right to education and rest, leisure and recreational activities. In the long term, they may even be forced to leave their home country.

- Information on children's rights and resources and tools: <a href="https://www.unicef.org/environment/index\_60332.html">www.unicef.org/environment/index\_60332.html</a>
- Greenpeace study "Klimawandel, Migration und Vertreibung" (Climate Change, Migration and Displacement): <a href="https://www.greenpeace.de/klimamigration">www.greenpeace.de/klimamigration</a> > scroll down for English version
- Speech by Selina Neirok Leem: <a href="www.greenpeace.de">www.greenpeace.de</a> > search for "Rettet meine Heimat" > scroll down for English version "Rede von Selina Leem zu G20"
- ←→ In 1992, Severn Cullis Suzuki from Canada, who was 12 at the time, gave a speech at the Earth Summit in Rio de Janeiro. Are Severn's and Selina's speeches similar?
- Speech by Severn Cullis-Suzuki: <a href="www.youtube.com">www.youtube.com</a> > search for "Severn Suzuki"

### →Which world do we want to live in?

*Teamwork:* Students research information on each of the Sustainable Development Goals (SDGs): What is the goal? What action is being taken in Germany? The results can be shown in maps of the world as described above. Maps can be used to reflect information such as "Share of renewable energies today and in 2030" or "Emissions today and in 2030". Then discuss the following question: Which world would you prefer to live in?

Information on SDGs: <a href="www.teachsdgs.org">www.teachsdgs.org</a> and <a href="www.google.com">www.google.com</a> > search for "We the people of the SDG" <a href="www.bmz.de/en/index.html">Actions in Germany: <a href="www.bmz.de/en/index.html">www.bmz.de/en/index.html</a> > Ministry > Objectives > Agenda2030 and <a href="www.2030-watch.de">www.2030-watch.de</a>

### **Profile: Selina Neirok Leem**

- Selina was born in 1997 in Majuro, the capital of the Marshall Islands.
- She grew up on Majuro, one of more than a thousand islands in the Republic of the Marshall Islands.
- At 16, Selina became a climate activist working to protect her country because the Marshall Islands are under threat from rising sea levels.
- Her vision: "I see a world that listens, understands and acts."

### →Interview with Selina

## Save my home country!

You were born on one of the Marshall Islands in 1997 - and you have experienced the effects of climate change first-hand.

When I was small, there was already flooding on a regular basis. My grandfather used to send my grandmother and us children to a hotel that was located higher up. I still remember always being afraid that something might happen to him.

Over time, the floods became more frequent, the water kept coming in higher. In 2014, we were told over the radio that we needed to evacuate. I had to spend two days with my parents and seven siblings in a church that was on higher ground. Since then, I have never stopped being afraid of losing my native home, maybe forever – the land of my forefathers that I love and where I will always want to live.

### When did you realise it was climate change that was threatening your island?

*I had a deeply religious upbringing and at first, I thought* that it was because God was angry with us. But then at school, I understood that it was rising sea levels. And that the developed nations with their carbon dioxide emissions were to blame for the sinking of my country. I became very angry, especially at the USA. When I was 16, I left Majuro and went to school in Freiburg for two years. Since then, I have taken every opportunity to tell people about my island and how it's being destroyed by climate change.

### How's the mood on the Marshall Islands?

Everybody notices the changes and is aware of the threat. Many of us are afraid of losing our homeland. But we don't want to just resign ourselves to our fate. We are fighting back.

Solar power supplies 99 percent of our islands with electricity. We do what we can. Our youth, our leaders, our politicians are fighting against the destruction of the climate all over the world. It's not just about my country – it's a threat faced by the entire world. We are threatened by floods, storms, droughts, heatwaves and famines. Millions and millions of people will lose their homes. We are fighting for all of them. For all of you. For all of us.

### What is your message to the global community?

We must all do our share to stop climate change. People have to do what they can on a personal level and politicians must act globally. Everybody here who drives a car, flies, or uses heating and electricity has the responsibility to save my country. Together, we must put pressure on politicians so they make decisions that go in the right direction and protect the climate – to phase-out coal power plants, reduce greenhouse gases and keep global warming below 1.5 degrees.

Source: www.greenpeace.de > search for "Rettet meine Heimat" > scroll down for English version "Rede von Selina Leem zu G20"

### **→**Task

### Read the interview and answer the following questions:

- Which consequences of climate change are a threat to Selina?
- Which human or children's rights may Selina not be able to enjoy?
- ▶ How could the situation of people on the Marshall Islands be improved?
- What can people there do themselves? And what can we do here?
- What does Selina expect from international climate efforts?

Fighting climate change

# 4

# Think Globally, Act Locally

The engagement of civil society and our own personal actions in support of sustainable development are of crucial importance to mitigating climate change. Here are suggestions for motivating your students to take action against climate change.

### →Our actions have consequences!

Your students can raise awareness for climate change by inviting other students, teachers and parents to a PechaKucha Night or to events such as an Urban Art action, a film showing or a poetry slam. The event can be held on a theme day such as Earth Overshoot Day or Earth Hour, or during a UN Climate Conference.

www.greenpeace.de > search for "Extreme Weather and Climate Change"

PechaKucha presentation format: www.pechakucha.org

### → Your handprint counts!

Students learn about the concept of the Ecological Handprint, which expands on the Ecological Footprint (see Easier Materials for 5th and 6th Grades). The hand is a symbol for positive actions that promote sustainability. Students think about how they can personally contribute to limiting climate change and display their handprints on posters. Examples for sustainable behaviour and actions include saving electricity, biking to school, eating vegetarian foods and local food products, and demonstrating against global warming.

Action: The posters could be publicly exhibited at a school or local art event.

Information on the concept of the Ecological Handprint: <a href="https://www.handabdruck.org/index\_en.php">www.handabdruck.org/index\_en.php</a>

### →What can we do locally?

Teamwork: Students do research on local civil society organisations committed to fighting climate change and then process this information for other students. Information can include the name of the organisation, its goals, activities, members, regular meetings and latest news. Using this information, students then create an engagement compass (digital or analogue) for the region. One group should identify opportunities for political engagement at a local or national level: demonstrations, petitions, letters to political representatives, youth parliaments and so on.

 $\longleftrightarrow$  And what opportunities do young people have to become involved at an international level? To find out, students can contact international organisations (UN, non-governmental organisations) and then complete the engagement compass.

Youth involvement in sustainability: <a href="www.youpan.de">www.youpan.de</a>
Organisations working against climate change:
<a href="www.climatenetwork.org">www.climatenetwork.org</a> and <a href="www.klima-allianz.de/english">www.klima-allianz.de/english</a>

### →Fight "climate killers"!

Students hunt down local "climate killer" and find out which fossil fuels play a role in the region's energy supply and public transport, for example. They ask the city why there has been no 100 percent switch to renewable energies and alternative power systems for buses and other forms of public transport. Then they think about how they could make things change. Actions could include petition initiatives, flash mobs or a poster campaign.

The Greenpeace action package "Schools for Earth" provides inspiration and suggestions on how to engage in fighting climate change and bring about climate justice: <a href="https://www.greenpeace.de/bildungsmaterialien">www.greenpeace.de/bildungsmaterialien</a>

### →Notes on Worksheet 4

Your students can use the worksheet to carry out their own climate projects. To work effectively, groups should not include more than five persons. Large projects can be divided into smaller subprojects.

**Collect ideas:** a moderation case or a creative technique such as brainwriting can help the brainstorming process.

Information on brainwriting: <a href="https://www.betterevaluation.org/en/evaluation-options/roundrobin">www.betterevaluation.org/en/evaluation-options/roundrobin</a>

Examine and select ideas: Together with your students select the ideas that can be realistically implemented. For example, students can present their ideas in an 'elevator pitch', which means they are given about one minute (average length of an elevator ride) to talk about their idea and persuade classmates to choose it. This makes students get to the point and present their ideas concisely. The Disney method (→ Easier Materials for 5th and 6th Grades) is another good way of selecting an idea. Make sure that projects are feasible. In the case of large projects, students can begin by working on individual aspects of the project so that they enjoy a sense of achievement as it progresses.

**Draft a project plan:** The project and all details should be planned as precisely as possible. This allows responsibilities to be assigned and clearly defined, and any problems can be identified early in the planning stage.

Tip: Your students can describe their project in an article for the school or local newspaper, or present it to the public in an exhibition.

As part of the "Schüler machen Kampagne" (Students do campaigns) programme, volunteers visit schools to help students take action: <a href="https://www.greenpeace.de">www.greenpeace.de</a> > search for "Greenspeaker"

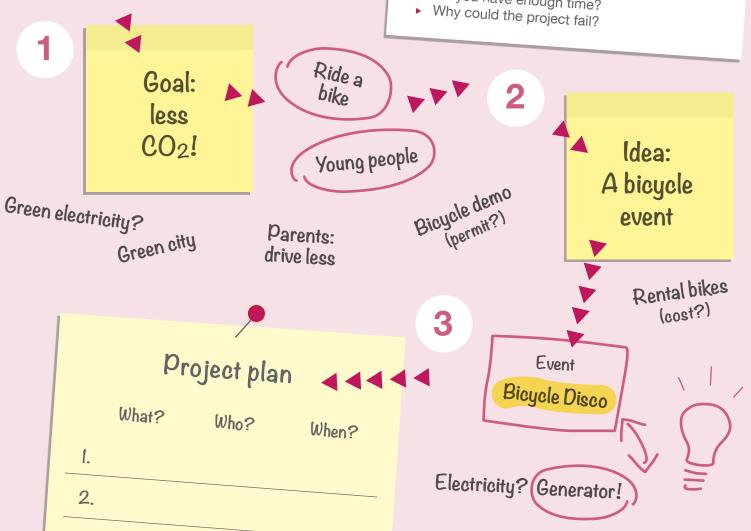
A Matter of Negotiation? Educational resources on climate change © Greenpeace 2019

# Our Climate Initiative

Think Globally, Act Locally

### → Questions

- Whom do you have to convince?
- Is your idea the right one for your target group?
- What do you need to carry out your idea?
- How much do you expect it to cost?
- Do you have enough time?



Climate change concerns us all! Plan your own local climate project. The notes shown above are just examples meant to give you some ideas. Grab your pen and paper and get started!

### → 1. Set goals

What do you want to achieve? Think about what you could do in your surroundings to make a difference. What do you want to change? How can you fight climate killers? Whom do you want to reach with your project? Who is your target group?

### → 2. Collect, examine and choose ideas

How will vou achieve your goal? Collect as many ideas as possible without judging them. Remember that in

a brainstorming session everything goes! Then choose the best idea for achieving your goal. The questions above will help you decide.

**Tip:** Summarise your idea in ONE sentence. This will help you organise your thoughts and create a clear idea for the project.

### → 3. Draft a project plan

What do you need to do? In a project plan, you define exactly who will do what and when. It's best to post the project plan in the classroom so everyone can see it. Use self-stick notes or a pinboard so you can make changes as you go along. Meet regularly to discuss who did what and what has to be done next.

These teaching resources are designed to address the challenges of climate

change in the students' immediate environment. They are appropriate for grades

→ Easier materials for 5<sup>th</sup> and 6<sup>th</sup> grades

### →Climate change first-hand

Personal reports by young people who have already experienced the impacts of global warming provide an emotional approach to the subject. The interview "Save my home country!" in → Worksheet 3 portrays climate activist Selina Neirok Leem from the Marshall Islands.

5 and 6, but can also be used for work with older students.

### →Living beyond our means

Students learn about the Ecological Footprint. The Ecological Footprint measures the amount of the Earth's land and water area which we use to produce the energy and natural resources we require to maintain our standard of living. The Ecological Footprint of the Earth's human population greatly exceeds the planet's entire surface area. Together with your students, use the Ecological Footprint to identify the greatest climate killers.

- Students can calculate their own footprint here: www.footprintnetwork.org
- Carbon Footprint Info graphic: data.footprintnetwork.org
- Causes and consequences of climate change can be explored using our teaching materials "Extreme Weather & Climate Change": <a href="https://www.greenpeace.de">www.greenpeace.de</a> > search for "Extreme Weather and Climate Change"

### →What does that mean?

As part of work on climate issues, students can compile a glossary of climate-related terms. It should be prominently displayed in the classroom and students can continue to add new words as they come up.

# → Worksheet "Making Your School More Climate Friendly"

This worksheet applies the concept of the Ecological Footprint to the school. Students are asked to find out how climate friendly their school is TODAY, and then come up with ideas to make their school more climate friendly TOMORROW. Students can be divided into groups, with each group working on one of four topics (electricity, heating, energy and food).

Carrying out ideas: The goal is not only to develop ideas for a climate friendlier school but to realise them as well. With your students, select the ideas that are feasible. Here the Disney brainstorming method is very helpful in deciding which ideas should be carried out. Each group presents one or more ideas they would like to implement. The other students are randomly assigned to one of three groups: the 'dreamers', who take a positive view of the idea and defend it enthusiastically; the 'realists', who look at the idea from a practical point of view and evaluate it as rationally as possible; and the 'critics', who question every aspect of the idea (constructively). After an idea has been presented, the groups examine and discuss it from one of these three different points of view.

Worksheet for the Disney method: www.designorate.com/disneys-creative-strategy

Planning projects: → Worksheet 4 "Think Globally, Act Locally" can be used to help you and your students plan projects. A project week gives students time to realise their ideas. It's good to involve the school management when working on larger projects – the class can give a presentation to propose its project.

 $\leftarrow \rightarrow$  The class can also measure Ecological Footprints and develop climate initiatives for local sports associations, churches, the city and others.

Show your commitment: As described in "Your handprint counts!" (→ Worksheet 4 "Think Globally, Act Locally"), your class can draw attention to its activities by hanging up posters with handprints in the school, for example, at the entrance to the cafeteria, on radiators and so on. Perhaps your students can come up with other ideas on how to make fellow students aware of their activities, by inviting them to eat climate-friendly snacks, for example, or by posting an article on the school website.

## **Making Your School More Climate Friendly**

Electricity ▼ How much electricity d	o we need?	Heating ▼ What do we use for heating	?
Today:	Tomorrow:	Today: Tor	morrow:
kWh/year Your idea:	kwiiyear	Your idea:	
Energy ▼ How is our energy gene	erated?	Food ▼ What do we eat at school?	
Today:	Tomorrow:	Today: To	morrow:
Your idea:		Your idea:	
→Task 1		→Task 2	
	riendly your school is TODAY	What could your school's footprint look	like

and enter the information on your school's Ecological

ment to tell you who can give you the information!

Footprint. Tip: Ask your teacher or the school manage-

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TOMORROW? What options do you have for making

in the spaces provided. Then mark the idea you think is

your school more climate friendly? Enter your ideas

easiest to do.

# **Dumping coal – but how?**

→ For 7th grade and up

How can the phase-out of coal be achieved in a way that is both socially acceptable and compatible with climate protection? The following information and ideas are designed to help you actively stimulate class debate. Using the example of the Coal Commission, students explore opposing positions and interests.

Climate and Coal Ask your students to prepare facts and figures about lignite for their (younger) classmates. Then, in groups, have them think of tangible examples, descriptive images and simple words for each fact and present them in a poster. Example: they might represent CO2 emissions as clouds of smoke with the proportions corresponding to the data. Topics: CO2 emissions in Germany and Europe, CO2 emissions caused by lignite in Germany and Europe, countries where lignite is mined, lignite mining regions in Germany, Germany's power mix, jobs in the lignite industry, efficiency. The posters can then be displayed in the school.

- Data on CO2 emissions: www.umweltbundesamt.de
- > Themen > Klima / Energie > Treibhausgas-Emissionen
- www.bmu.de > Search for "Klimaschutz in Zahlen"
- de.statista.com > Search for "Emissionen Energieträger"
- Coal Atlas Facts and figures on a fossil fuel: <a href="https://www.boell.de">www.boell.de</a> > Search for "Kohleatlas"
- Inspiration: www.zeit.de/serie/wissen-in-bildern

**Seeking consensus** 31 representatives of political parties, the scientific community, trade unions, business and energy associations, environmental associations, and the lignite-producing regions sat on the Coal Commission in 2018–2019. Convened by the German government in response to the climate crisis, the Commission was tasked with drafting an action plan to regulate the phase-out of coal in a way that is both socially acceptable and compatible with climate protection. The students research what they consider the three most relevant facts about the Coal Commission, stating the source. They then answer the following questions: Who was involved? What was the Commission's task and why was it given this task? How did the Commission work? What was the outcome? Why were there dissenting opinions?

### Worksheet: "Dumping coal – but how?"

For scientists, environmental associations and climate activists the objective is clear: phase out coal as quickly as possible. However, the energy industry and trade unions are focusing on the question of profitability and the future of the lignite-producing regions. Using the worksheet, students explore the different opinions within the Coal Commission.

Who stands for what? Drawing on the quotations, the students identify the different positions taken by scientists, trade unionists, business and energy associations, environmental associations, and people from the lignite-producing regions. They answer the following questions: which of the interest groups did each person on the Commission represent? Which interests can be identified in the quote? Then, together the class considers which interests might come into conflict.

What's behind all this? The loss of jobs is often cited as an argument against phasing out coal by 2030. Students discuss the following questions: Who uses this argument? Which interests underlie this position? How does the class evaluate this argument in light of the counter-arguments from scientists and environmental organizations? Before you start, ask the students to research how many people are employed in the coal industry and in the renewable energy sector and what the reasons for job losses in other sectors could be.

Background information and current news: <a href="https://www.klimareporter.de">www.klimareporter.de</a>, <a href="https://www.bmwi.de">www.bmwi.de</a> > Search for "Kohlekommission" (Coal Commission)

Where do you stand on this? The students take their own positions on this issue. Each student writes a statement in response to the question: How should Germany stop using lignite to generate electricity? Before beginning, you could ask students to come up with relevant adjectives: immediate, socially acceptable, cautious, consistent, necessary, uncompromising, ... Students could then communicate their position in a way that might attract public attention, for example, as a video commentary or a political visual statement on social media or the school website. The statement could be anonymized by obscuring faces or by not naming the students.

Inspiration for political video comments:: <a href="https://www.youtube.com">www.youtube.com</a>
<a hr

**Our future is at stake!** Initiated by Greta Thunberg, Fridays for Future (FFF) is now a worldwide movement and a strong voice in the debate about the phase-out of coal, including on social media. Using screenshots, the students create collages on FFF reactions to the final report of the Coal Commission. They then place FFF's demands for the phase-out of coal on the collages opposite the recommendations of the Coal Commission: What are the criticisms of the FFF movement?

←→ Invite representatives of FFF from your region to visit your school and discuss: Is the German government's "climate package" (programme of climate protection measures) appropriate? Does is go far enough or is it a step too short?

- FFF on twitter: <u>www.google.de</u> > Search for "twitter #kohlekommission #fridaysforfuture #zukunftskommission"
- Demands of FFF: <a href="https://www.fridaysforfuture.de/forderungen">www.fridaysforfuture.de/forderungen</a>
- Final report of the Coal Commission: <a href="https://www.bmwi.de">www.bmwi.de</a> > Search for "Abschlussbericht Kohlekommission" (Coal Commission final report)
- Analysis of the climate package: <a href="www.zeit.de">www.zeit.de</a> > Search for "Der Weg der Mitte ist ein abschüssiger Pfad"

# **Dumping coal – but how?**

### SCIENTIFIC COMMUNITY



Prof. Hans Joachim Schellnhuber

Director of the Potsdam Institute for
Climate Impact Research (PIK)

"It should actually be clear to everyone involved and affected that the era of lignite is coming to an end and that structural change is inevitable – unless you ignore all the warning signs until the last person turns off the lights. If we really want to implement the Paris Accord globally, coal-fired power generation must end by 2030."

Interview in the Tagesspiegel, 24 August 2018 | Photo: Simon Bierwald/INDEED

ENVIRONMENTAL PROTECTION AGENCY



Martin Kaiser

Managing Director of Greenpeace
Germany

"Old lignite-fired power plant units must either be throttled or shut down if Germany is to achieve its climate targets by 2020. This can be done without jeopardising the security of power supply!" "A quick coal phase-out by 2030 is important to protect our climate. No country in the world currently burns more lignite – one of the greatest climate poisons – than Germany."

Greenpeace press release, 17 September 2018 / Greenpeace interview, 29 August 2018 Photo: Daniel Müller/Greenpeace





Stefan Kapferer
Chairman of the Executive Board
of the Federal Association of Energy
and Water Management

"We believe it is crucial to address, in addition to the issues of climate protection and regional structural policy, the effects on secure power supply and the affordability of electricity. It is also essential that any solution adopted by the Structural Commission meets the needs of the energy industry and does not infringe on the property rights of the companies concerned."

Press release of the Federal Association of Energy and Water Management, 6 June 2018 | Photo: BDEW/Farys

COAL WORKERS' UNION



Michael Vassiliadis
Chairman of the Mining, Chemical
and Energy Industries Union

"Everyone in the brown coal industry knows it's going to end sometime. But we have to create the conditions for investment in these mining areas – and not just in a few nail salons or import-export firms, but in well-paid industrial work. (...) I think it's right that the Commission doesn't want to start with the question of how to phase out coal – instead we are first addressing the question of how the phase-out of coal would actually affect energy supply and the regions concerned."

German Press Agency, 6 June 2018 | Photo: Helge Krueckeberg (CC BY-SA 3.0), Wikimedia Commons





Antje Grothus

Representative of the citizens' initiative
"Bürger für Buir" (Citizens for Buir)

"The coal phase-out must be socially acceptable – but this involves more than just jobs. Coal mining has always come at a heavy cost for local residents. And everyone knows that secure, sustainable jobs are not to be found in coal. Whoever tells people otherwise is lying to them."

Interview in Die ZEIT, 7 September 2018 | Photo: Pascal Amos Rest/Greenpeace



### The Coal Commission:

31 representatives of political parties, the scientific community, trade unions, business and energy associations, environmental associations, and the lignite-producing regions.

www.klimareporter.de/deutschland/

das-sind-die-mitglieder-der-kohlekommission