

# LESSON E2

## CLIMATE JUSTICE (ADVANCED STUDENTS)

### MAIN SUBJECTS

Social sciences

### DURATION

- ~ Preparation: 1 h
- ~ Activity: 1 h 30

### SUMMARY

The students discuss topics that raise the issue of climate justice.

### KEY IDEAS

- ~ Not all countries emit the same amount of greenhouse gases, nor are they equally vulnerable to climate change impacts.
- ~ The wealthiest countries emit the greatest amounts of greenhouse gases.
- ~ Droughts, storms and floods exacerbated by climate change mainly impact people living in developing countries who have contributed least to climate change.
- ~ The majority of the world's people live in rapidly developing countries; this will have an impact on future greenhouse gas emissions.
- ~ There is a growing consciousness of the need for urgent and widespread action to limit climate change and protect the most vulnerable.
- ~ Science can explain the origins and mechanisms of what is happening, but it is the choices of each citizen and the countries' legislations that guide actions.

### KEYWORDS

Responsibility, vulnerability, equity, climate justice

### INQUIRY METHOD

Debate



### → TEACHER TIP

This lesson is presented in the form of a “philosophical workshop”.

It is recommended that you intervene as little as possible during a lesson of this type, in order to avoid biasing the discussion. The idea is not to reach a specific conclusion, or express what is true or false, but to have the students realize the difficulty of the dilemmas with which our society is confronted. Here, the science (and the facts) provide food for thought, but it is the moral or ethical choices that allow each person to form his/her own opinion.

The discussion should be organised in a way that facilitates freedom of expression. The question that opens the debate must be chosen according to the local context, current events, etc. The questions we propose are just examples.

## INTRODUCTION 10 MIN

We have learned about the greenhouse effect and the consequences of climate change. We have seen that many of the ecosystem services we need may be affected. We are now going to think about the potential implications in terms of social justice.

## PROCEDURE 1 H 10

1. The students sit in a circle. The teacher remains outside of the circle.
2. Explain to the students the rules of the philosophical discussion:
  - A “talking stick” will be passed from student to student. Each student has the right to say whatever his/her thoughts are on the question that will be asked, but only while holding the stick.
  - There are no right or wrong answers.
  - No one has the right to speak at the same time as the holder of the stick.
  - No one is allowed to judge or make fun of the person talking. Everyone must listen to and respect the others' ideas.

## PREPARATION 1 H

### MATERIALS

- Documents prepared according to the topic chosen (see item 3 of the “Procedure”);
- Sound recorder;
- One “talking stick”.

### LESSON PREPARATION

1. Prepare documents according to the topic chosen.
2. Place all classroom chairs in a circle with no tables.

- No one is obliged to speak when his/her turn arrives. The student can simply pass on the stick if he/she does not wish to speak.
- You can record the answers.

3. Ask the students to think about one of the following issues (choose only one question, the one that seems most relevant for your class):

- *Should we welcome in our country climate refugees from other countries?*
- *Should developed countries pay a higher price to mitigate climate change than developing countries, even if, today, some developing countries emit more greenhouse gases?*
- *Why should we take action? Isn't it governments' (or industries') responsibility to do something rather than ours?*
- *Should the cost of fighting climate change be borne by those most responsible, or by those that will benefit the most from mitigating climate change effects?*
- *In order to help the poorest countries, is it more efficient to fight against climate change or to continue maximising economic growth?*
- *Why should we make an effort if others (other countries, other people) are not ready to make an effort themselves?*
- *Fighting against climate change implies drastic changes in our way of life. Won't these drastic changes cause even more serious social problems?*
- *Why should we pay for the consequences of our parents' and grandparents' actions?*

4. After a few minutes, give the “talking stick” to a random student and ask him/her to share his/her reflections on the subject. When the stick returns to the initial student, ask the students who did not speak if they wish to do so now. At the end, stop the recording.

5. Ask the students if they want to give their opinion on how the exercise went (*Was everyone heard and respected? Was it a hard exercise? Were the opinions interesting?*)

6. Replay the recording to the students and, afterwards, tell them to point out all the pros and cons that were mentioned. Write them on the whiteboard.

7. Distribute the documents that you prepared to each student. *In view of the previous discussion, which arguments (in the documents) are for or against each point of view?*

## WRAP-UP 10 MIN

Conclude the lesson by asking the students: *Given what you have learn about who is responsible for and who is most vulnerable to climate change, do you think climate change is “fair”?* The issues of wealth, greenhouse gas emissions and differences in exposure and vulnerability to climate impacts should be discussed. (The wealthiest countries are the biggest greenhouse gas emitters per capita but are the less exposed to and vulnerable to the impacts of climate change. This is due to their geographic location and to the resources they have available to adapt to and cope with climate change consequences.)

## BACKGROUND FOR TEACHERS

Current **greenhouse gas emissions are unevenly distributed among countries**. In 2017, 58% of the world's CO<sub>2</sub> emissions from fossil fuels were produced by China (27%), the United States (17%), the European Union (10%) and India (7%). Per person (per capita), the order is different: the United States produce 16.2 tons per person; China and the European Union produce 7 tons per person and India produce 1.8 tons per person. This means, for example, that even though China is the greatest emitter, since its population is the largest in the world, the emissions per capita may be lower than in the United States, whose population is around a billion people fewer, but where each average person emits more than the average Chinese person.

Looking at the past, developed countries contributed heavily to the current CO<sub>2</sub> concentration: during the century between 1880 and 1980, the United States and Europe each contributed to 30% of the CO<sub>2</sub> emitted by fossil fuel burning. Still today, developed countries are the biggest greenhouse gas emitters. The increase of the Asian contribution (China and India) began around the year 2000, with their industrialisation and demographic increase.

Not all countries contribute equally to global greenhouse gas emissions and not [...]

[...] all countries are equally affected by climate change consequences; frequently, the most affected are not the most responsible (see pages 18-23 of the Scientific Overview for further details on exposure and vulnerability).

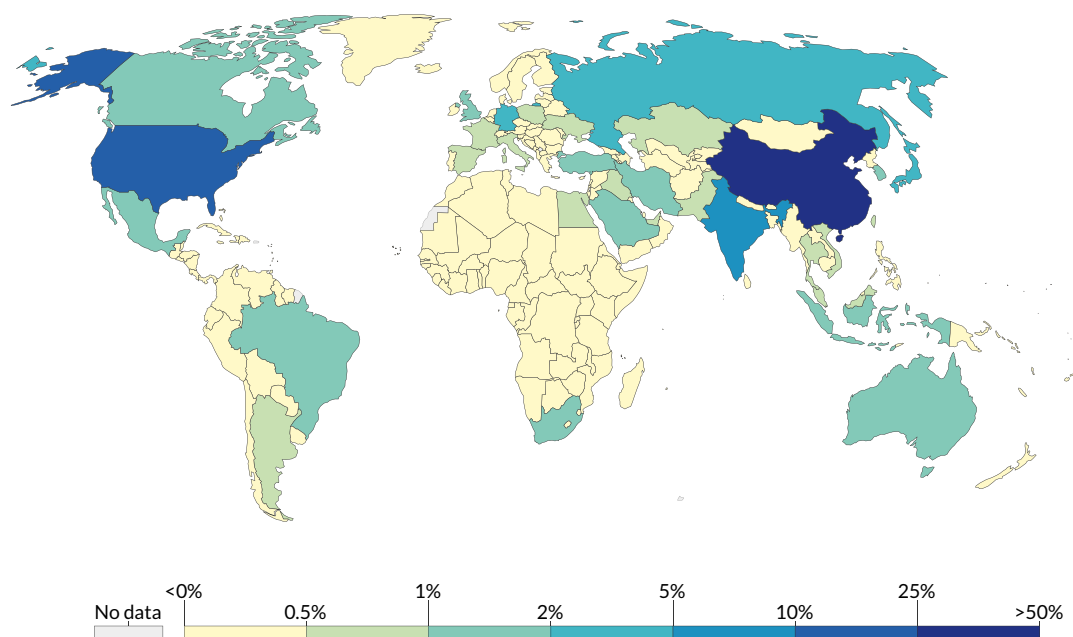
Ensuring there is **climate justice** in a given action thus requires the weighing up of different factors: Are the most industrialised countries – which acquired their wealth, and still do, thanks to energy from fossil fuel combustion – to be considered responsible for the damages caused by climate change, in less wealthy countries? If, for example, a carbon tax is to be implemented to reduce CO<sub>2</sub> emissions (e.g. taxing petrol engine use), how can we make sure that it does not further worsen the living conditions of the less wealthy part of the population? If new “zero-carbon” energy power plants are installed in developing countries, which badly need energy, who should cover the extra-cost this represents, compared to more classical installations (e.g. a gas-fired power plant for electricity production)?

These questions, and the search for solutions, illustrate the complexity of the Earth’s system, which in the human era includes human societies. Nearly everything is interdependent on everything else: an action may have zero or negative feedback, but also positive feedback, making the overall situation worse.

Science can and must give the facts and the evidence, improve the projections for the future, estimate probabilities of events as best it can, and do its best to establish conclusions based on rationality, and make them known and understood by everybody. However, **science alone cannot provide the rules for the steps to be taken, nor say what is fair or prove that there is justice in global solidarity.** With such complex and global issues, the **ethical and moral values of both individuals and societies are ultimately the sources of judgment and decisions.**

#### SHARE (IN %) OF GLOBAL CUMULATIVE CO<sub>2</sub> EMISSIONS IN 2017

Each country's share of global carbon dioxide (CO<sub>2</sub>) emissions. This is measured as each country's emissions divided by the sum of all countries' emissions in a given year plus international aviation and shipping (known as “bunkers”) and “statistical differences” in carbon accounts.



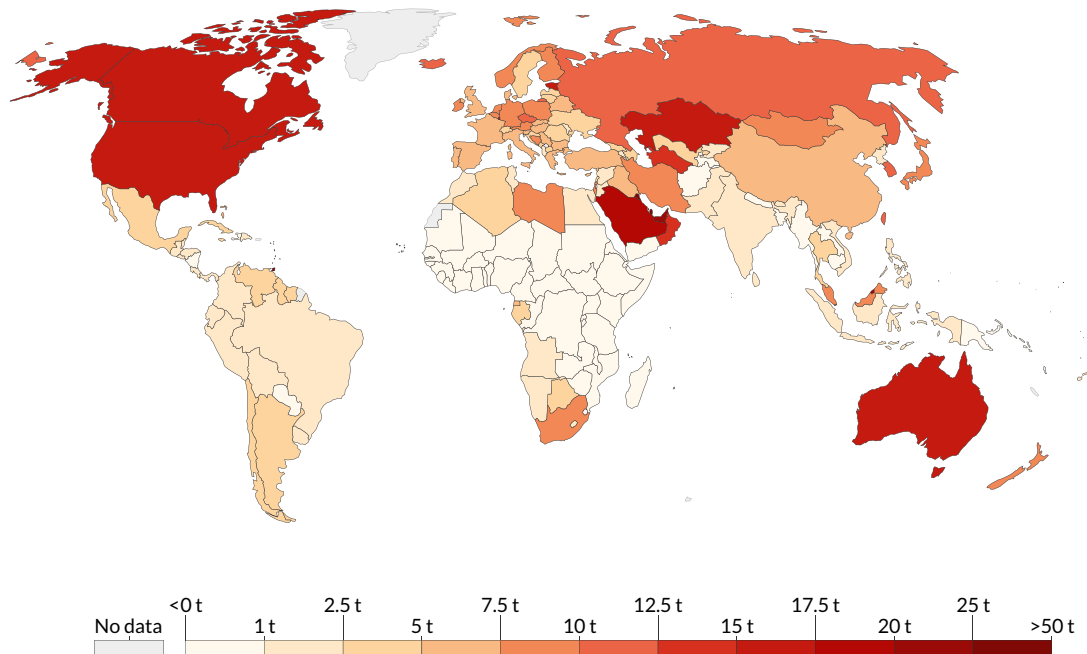
Source: Our World in Data based on Global Carbon Project (2018).  
<http://OurWorldInData.org/co2-and-other-greenhouse-gas-emissions>

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### CO<sub>2</sub> EMISSIONS PER CAPITA IN 2017

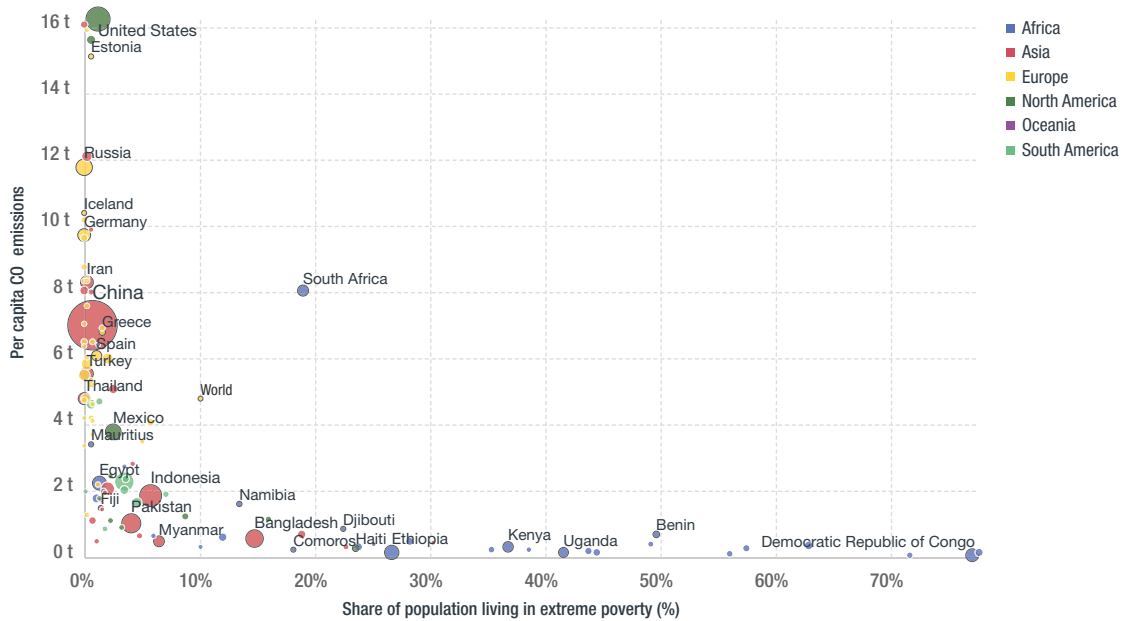
Average carbon dioxide (CO<sub>2</sub>) emissions per capita measured in tonnes per year.



Source: OWID based on CDIAC; Global Carbon Project; Gapminder & UN.  
<http://OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/>

### CO<sub>2</sub> EMISSIONS PER CAPITA IN 2017 VS SHARE (%) OF PEOPLE LIVING IN EXTREME POVERTY

Average CO<sub>2</sub> emissions per capita are measured in tonnes per year. Extreme poverty is defined as living at a consumption (or income) level below 1.90 “international-\$” per day. International \$ are adjusted for price differences between countries and price changes over time (inflation).



Source: Global Carbon Project; World Bank; Gapminder & UN.  
<http://OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/>