

## Workshop on

### “Climate policies at the global, national and regional level”

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**Room: Senatssaal G237**

#### Outline

In the 2015 Paris Agreement 195 countries agreed to set out a global action plan to avoid dangerous climate change by limiting global warming to well below 2°C above pre-industrial levels. As a core element, the agreement is based on “bottom-up” nationally determined contributions (NDCs) being voluntarily imposed by the different parties themselves. As these pledges are self-determined by sovereign nations and therefore are not enforceable and legally binding, reasonable doubts persist whether the cumulative effort will actually be sufficient to meet the global climate target. Furthermore, the agreement is seriously weakened due to the withdrawal of the US government.

Climate change mitigation is a global public good characterized by non-rivalry and non-excludability. Given the serious difficulties to find an ambitious global agreement to reduce CO<sub>2</sub> emissions supra-national, national and regional policies have been introduced in order to tackle climate change. In Europe, the EU ETS is the biggest emissions trading scheme worldwide and sets a price on CO<sub>2</sub> emissions. China, the biggest CO<sub>2</sub> emitter worldwide, is launching a country-wide emissions trading scheme. US states such as California introduced state-wide emissions trading schemes and support renewable energy programs. European countries such as Germany have their own ambitious CO<sub>2</sub> emissions objectives and policies such as renewable energy programs or planned phase out of coal despite existing regulation at the EU level. Even cities such as Leipzig have their own climate protection program. Other cities plan to go “carbon neutral”. What we observe all over the world is a mixture of policies in order to reduce CO<sub>2</sub> emissions despite the absence of a global agreement and a global price on CO<sub>2</sub> emissions. This is problematic from an economic point of view, but also disappointing from an environmental perspective since global emissions are still rising.

The objective of the workshop is to discuss different policies with the same objective: to reduce CO<sub>2</sub> emissions at different levels of collective action. We will present the policies including their technical background and discuss the corresponding challenges from the US and the German perspective. Students from the US and from Germany will take part in the workshop and will prepare for the workshop by reading a few articles. During the workshop they will work jointly on a given task and then present their results. All participants will receive a confirmation of participation in the workshop.

## Organization

Time	
9.30-9.45 am	Welcome & Introduction
9.45-10.15 am	Overview of regional, national and global climate perspectives (Prof. Sturm)
10.15-11.30 am	(Mixed) group work on questions (different subject for every group): - What initiatives are you familiar with on the different levels? - What is the impact of these initiatives on the different levels? - What are the problems (technical, social, political) associated with reaching the goals?
11.30-1.00 pm	Lunch break
1.00-2.00 pm	Presentation of group results (10 min. per group)
2.00-3.00 pm	Discussion of all results and summary

## Topics and literature

I. Before you read the article assigned to your group, please complete the following tasks:

1. Go to this website and calculate your carbon footprint. Please bring your results with you to the workshop so that you can discuss them with your group members: <http://www.unequalcarbonfootprints.org/ucf/index.cfm> You may also want to reference your carbon footprint in your final presentation and how everyone in your group compared.
2. Watch this short video for a background on tradable carbon units: <http://www.unesco.org/new/en/natural-sciences/special-themes/global-climate-change/related-info/climate-neutral-unesco/>
3. Read the *Nature* paper (Bogdanov et al. 2019) – Take notes on whether or not you agree that 100% renewable energy could work worldwide. Why or why not?
4. Read Chapter 15 in Richard Tol's book "Climate Economics" (2019). He argues that "climate change is a relatively small problem". Do you agree?

II. During the workshop, we will create **six groups**. Each group has a mix of German and American students. Each student reads the articles assigned for the group topic and prepares answers to questions.

Group 1: Local – Explore and discuss these cities' plans to go carbon neutral.

- Vancouver - Going carbon neutral: <https://vancouver.ca/files/cov/Greenest-city-action-plan.pdf>
- New York City: <https://carbonneutralcities.org/cities/new-york-city/>

Group 2: Local – Explore and discuss these cities' plans to go carbon neutral.

- Berlin: <https://www.cleanenergywire.org/dossiers/city-berlin-shoots-high-climate-goals-can-it-deliver>
- Washington, DC: <https://carbonneutralcities.org/cities/washington-dc/>

Questions for groups 1 and 2: What types of initiatives are the cities you read about proposing? Compare your cities (Columbia, SC plan: <https://www.columbiasc.net/cpac> and Leipzig) with the cities that have also pledged to go carbon neutral. Would these same ideas be possible there? Why or why not? Think about specific examples – public transportation, PV, trees, bike paths, etc. Discuss the option to reduce emissions.

Group 3: National – The German coal phase out

- Report: <https://www.cleanenergywire.org/factsheets/implementing-germanys-coal-exit-proposal-road-ahead>
- Interview: <https://www.cleanenergywire.org/news/preview2019-coal-exit-should-be-driven-markets-bad-energy-security-rwi>

Questions for group 3: Do you think Germany's coal phase out is possible? Do you think that it is reasonable? Are there other issues to consider? Do you think Germans are supportive of the phase-out? Why or why not?

Group 4: National – US climate change mitigation regulation

- US regulation at state level – emissions trading scheme in CA  
<https://www.c2es.org/content/california-cap-and-trade/>
- The Problem with Putting a Price on the End of the World:  
[https://www.nytimes.com/interactive/2019/04/09/magazine/climate-change-politics-economics.html?ref=collection%2Ftimestopic%2FCap%20and%20Trade&action=click&contentCollection=timestopics&region=stream&module=stream\\_unit&version=latest&contentPlacement=1&pgtype=collection](https://www.nytimes.com/interactive/2019/04/09/magazine/climate-change-politics-economics.html?ref=collection%2Ftimestopic%2FCap%20and%20Trade&action=click&contentCollection=timestopics&region=stream&module=stream_unit&version=latest&contentPlacement=1&pgtype=collection)

Questions for group 4: To what extent do you believe cap and trade is possible? How is it working in California? Are there political influences regarding carbon pricing? What other aspects should we consider? How can people be influenced to care more about the environment? Do you agree with the suggestions made in the second article? Why or why not?

Group 5: International – China

- Article by Li et al. (2018)
- Article about co-benefits, also relevant for other developing nations  
<https://phys.org/news/2018-04-health-benefits-offset-china-climate.html>

Questions for group 5: To what extent should co-benefits be considered in arguments about climate change? Could that be used as an argument to combat climate change? Why or why not? What benefits were found in the articles you read?

Group 6: International – The EU ETS

- EU ETS factsheet, European Commission.  
[https://ec.europa.eu/clima/sites/clima/files/factsheet\\_ets\\_en.pdf](https://ec.europa.eu/clima/sites/clima/files/factsheet_ets_en.pdf)
- Social Justice aspects of cap and trade: <https://grist.org/justice/cap-and-trade-not-so-great-if-you-are-black-or-brown/>

Questions for group 6: To what extent do you believe cap and trade is possible in Europe? How is it working so far? Could this same plan be adopted in other countries? What other aspects should be considered? How has Europe gained support for this program from each country in the EU? Are Europeans supportive of the initiative? Why or why not? How does cap and trade affect less affluent populations?

General questions for all groups after you have discussed your group's articles:

1. What must we do to reduce CO<sub>2</sub> emissions?
2. Is there a risk that different policy instruments interact?
3. Can the *Nature* article about a zero-emissions world work?
4. How can we convince people/companies/countries to change how they live?

Once you have discussed your carbon footprints, the *Nature* article, and your group's articles, please discuss the general questions for all groups. Prepare a short (5-10 minute) presentation to wrap-up your group's main discussion points and main take-aways. Be sure to include questions for the audience.