



Open Lines: 2100

A climate scenarios workshop



Future climate scenarios workshop: why participate?

Ask yourself: how much warming is likely to occur by 2100 or beyond? What will the impacts be at this temperature? I designed this workshop after realising that I could not confidently answer these questions and, by asking students, finding that I was far from being the only one. But how can we prepare for the future if we don't know what it might look like? We must have a view on what futures to avoid, and what futures to aim for. This knowledge is crucial for evaluating mitigation strategies and informing one's sense of urgency and hope.

Clarity on future climate scenarios is obscured by complex scientific jargon and the dizzying variety of ways in which climate models are presented. Projections also tend to stop at 2100, meaning awareness of longer-term climate change is low. This workshop aims to remedy these issues by demystifying technical language and providing the most relevant information in one place.

However, climate scenarios are uncertain. They are subjective. Should we only consider the scenarios which are most likely? Which climate impacts does one consider to be the most pressing? Do we have faith in our current institutions to remedy the root causes of climate change? Climate futures cannot be presented in just one way. Discussion is needed!

This workshop will also introduce climate repair technologies. Doing so in the context of a future scenarios workshop encourages students to critically engage with the concept of climate repair and evaluate the technologies' viability. This will also serve an exercise in how to draw on one's contextual knowledge of climate futures to evaluate mitigation strategies.

Call for input and collaboration

While we have tried to design this workshop without bias, and have only used resources from reputable sources, we acknowledge that there will always be inherent biases in how one presents the climate change issue. We therefore highly encourage feedback and suggestions from individuals and organisations on how the workshop could be improved. Please email Calum Steer at cms227@cam.ac.uk if you'd like to do so.

Who is the workshop for?

This session is for anyone who wants to think about where climate change is heading and what we can do about it. It's open to all students – from first year undergraduate to PhD – and you don't have to be from a climate or scientific background. The workshop is suitable for groups between 5 and 20 people.

What will participants do?

Participants will estimate, learn about, discuss, and rank the plausibility of warming and impact scenarios. Participants will then discuss both existing mitigation methods and climate intervention technologies. Throughout the workshop, participants will have the chance to record their estimates and opinions on Mentimeter, and review and discuss snapshots of key resources. After the workshop, participants will receive a personalised digital overview of the workshop and their Mentimeter contributions.

The workshop facilitators



Calum Steer

I am the Student Engagement Coordinator at the Centre for Climate Repair. After graduating from Cambridge with an MPhil in Development Studies, I worked for UNRWA in Jordan and SEED in Madagascar, designing workshops on sustainable development with international colleagues. I look forward to learning from students' views, sharpening our perspectives on climate change with an evidence-backed understanding of our climate's long-term future.



Clara Botto

I am a first year PhD student with the Centre for Climate Repair exploring how participatory methods can support a more just governance architecture for solar geoengineering. I am also Director of Outreach at DSG (The Alliance for Just Deliberation on Solar Geoengineering) and have collaborated with different climate and environment projects for the past 10 years. I have enjoyed leading workshops on responsible solar geoengineering research as part of this work.

The workshop: in a snapshot

Duration

90 minutes. The workshop can also be finished after section 6, making it 60 mins.

1. Welcome

Set the tone that this is not doom and gloom workshop; in all future climate scenarios there is much to be positive about. Participants introduce themselves.

2. Your Climate Estimate

Participants estimate temperature change in 2050 and 2100. How will these estimates change throughout the workshop?

3. The Roads Ahead: Warming Scenarios

Aided by a few key bits of evidence, participants discuss and judge the likelihood of the variety of emissions/ warming scenarios offered by the IPCC.

4. What a Warmer World Looks Like

What impact will these levels of warming have on different parts of the world. What impacts are most important to consider. What should be our approach to uncertainty? Participants discuss.

5. The Mitigation Toolkit So Far

What mitigation strategies have we tried so far? How effective have these been? Participants review key resources and vote.

6. Enter Climate Repair

Introduce Climate Repair – a concept covering Carbon Dioxide Removal technologies and Solar Reflection Methods. Workshop facilitator explains how these technologies work.

7. Putting Climate Repair to the Test

What criteria can we use to judge the potential of Climate Repair technologies? Participants review key resources and discuss their assigned technology using this criteria.

8. Your Verdict

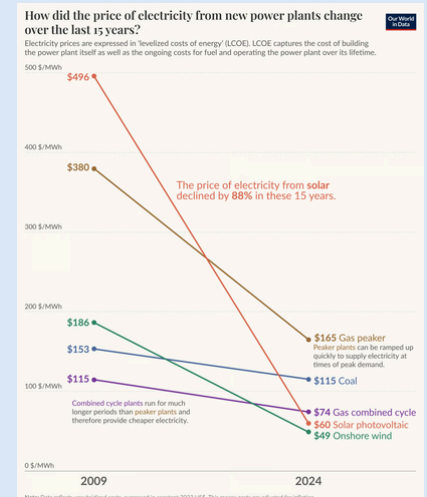
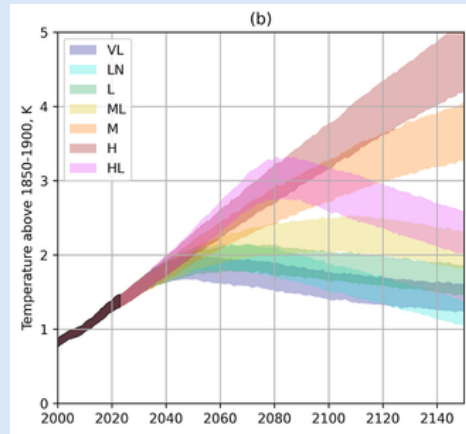
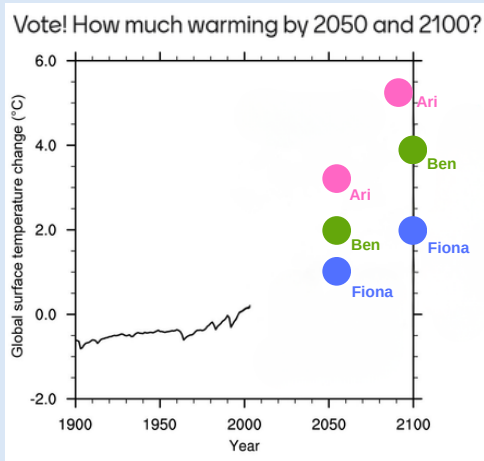
Participants vote: should climate repair technologies be researched, deployed, or neither? How should our perception of the climate's future effect how we act today?

Is the workshop adaptable?

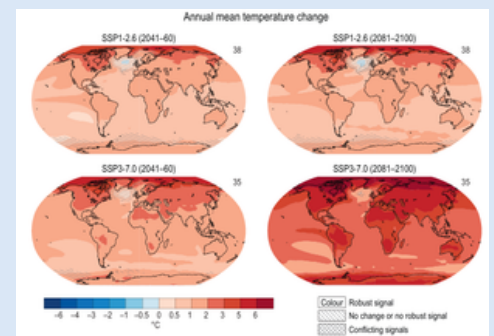
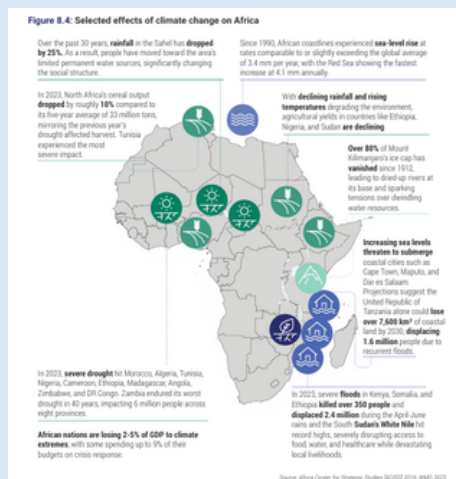
Climate futures can be viewed through many different lenses. As such, we've designed the workshop to be very adaptable, especially the discussion and evaluation criteria selection aspects of the workshop. For example in section 4, the facilitator could ask a variety of questions related to how climate impact should be represented, and in Section 5 and 7, different criteria could be chosen to evaluate current mitigation strategies or climate repair technologies. The resources used to represent the workshop topics can also be altered.

Activities and resources

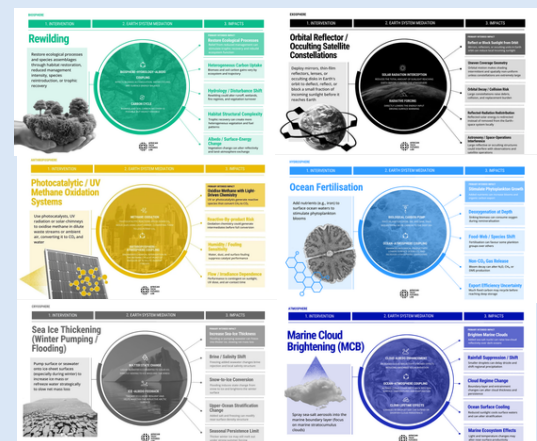
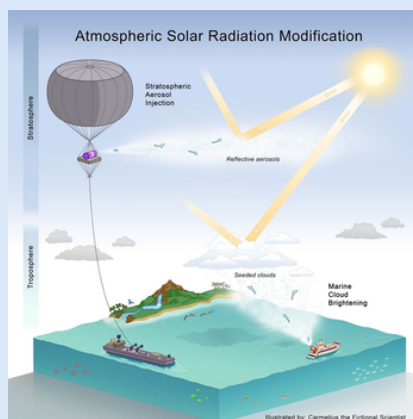
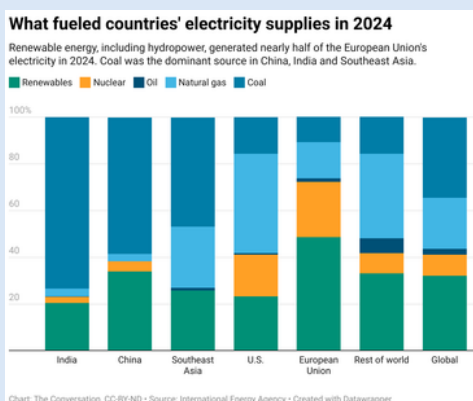
Resources have been chosen based on whether they are quick and easy to interpret and whether they contribute to a balanced representation of the workshop topics. To ensure that climate change and its impacts are humanised, we've included resources that demonstrate how groups and individuals experience the climate.



What climate scenarios are the most plausible?



What are some of the likely impacts in future warming scenarios?



What strategies are available to us? How effective are they?



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Centre for
Climate Repair

The Centre for Climate Repair is a research centre based at the University of Cambridge, bridging disciplines to develop a strong foundation of research on a variety of approaches to tackle climate change. Emissions reductions are indispensable, but will not keep global warming below 1.5°C. CCR is collaborating with scientists around the globe to investigate whether greenhouse gas removal and solar reflection methods could be tools to help us achieve this goal. As well as the science, we are passionate about listening to and engaging with students, communities, and policymakers. Visit <https://www.climaterepair.cam.ac.uk> to find out more.



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