Carbon Literacy Training

Session 2: Climate Change Impacts, Climate Justice, and Future Scenarios

Adapted for the University of Worcester by Katy Boom, Sian Evans, Gill Slater, Ruth Whittaker

Independent Learning

In the video, there is a discussion about communities that emit the least carbon emissions also being those that are most likely to suffer the most severe impacts of climate change.

- Can you list two countries that you think will be most impacted by climate change?
- Can you list two countries that you think will be least impacted by climate change?
- What does this reveal to you?

Session 2: learning outcomes

- Consolidate understanding of the learning outcomes from session one
- Explore the consequences of not taking climate action
- Learn about the countries that are the most vulnerable to climate change and the countries that are responsible for the most emissions, both currently and historically
- Explore various carbon reduction actions that lead to a positive future

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Consolidate learning from session one

Watch the video to recap learning from session one.

Any comments or questions before we get started with session two?

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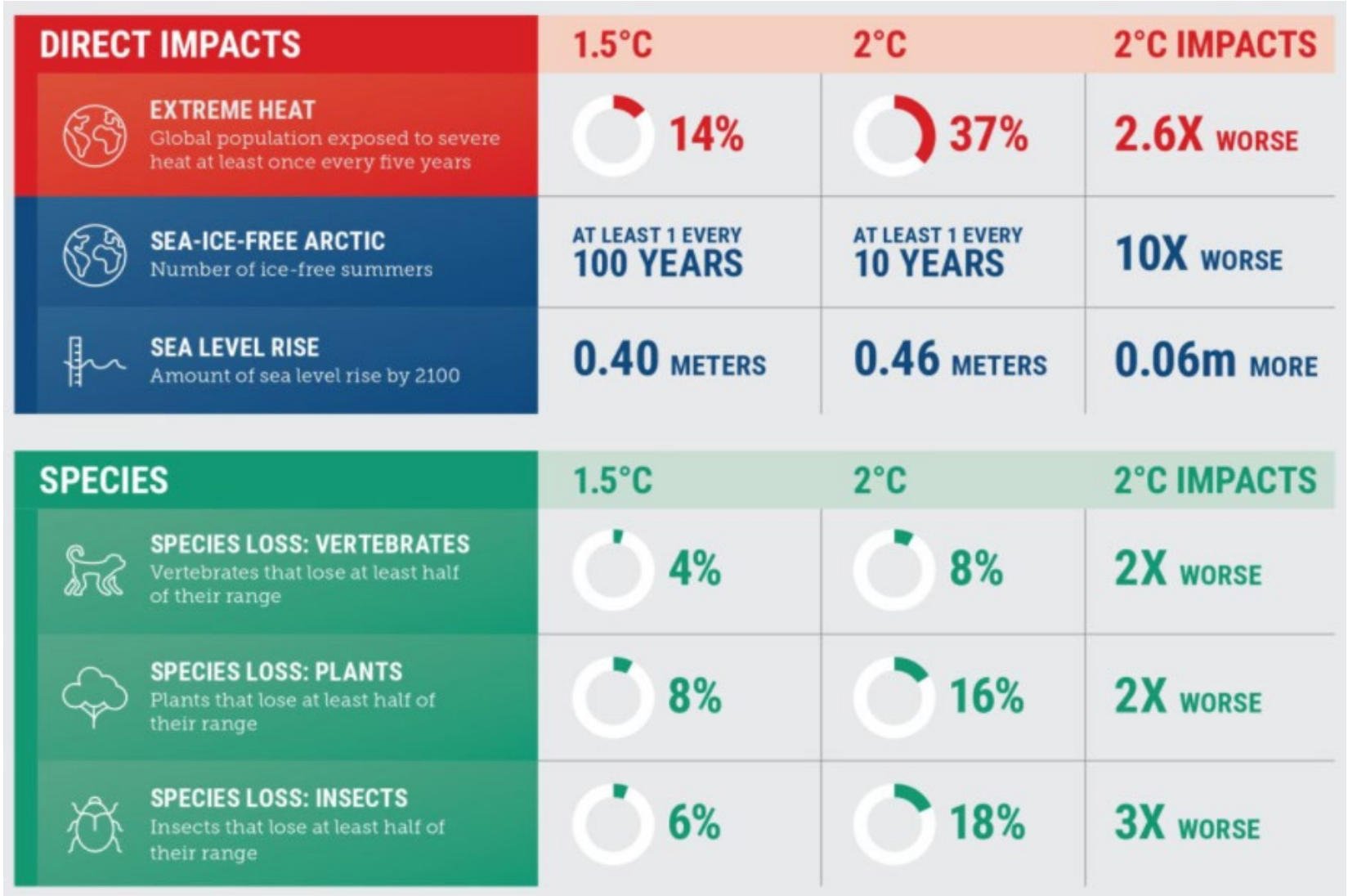
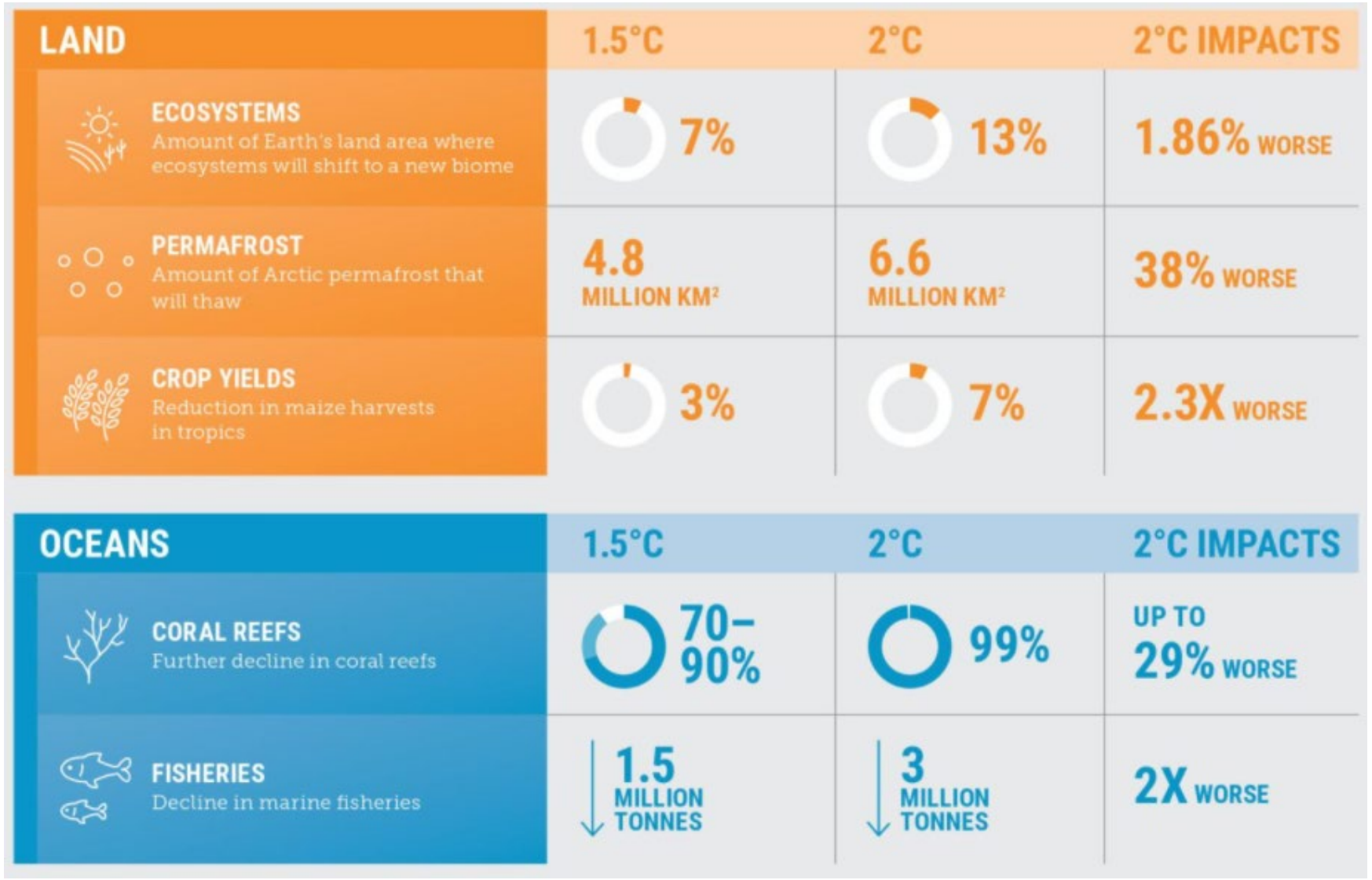
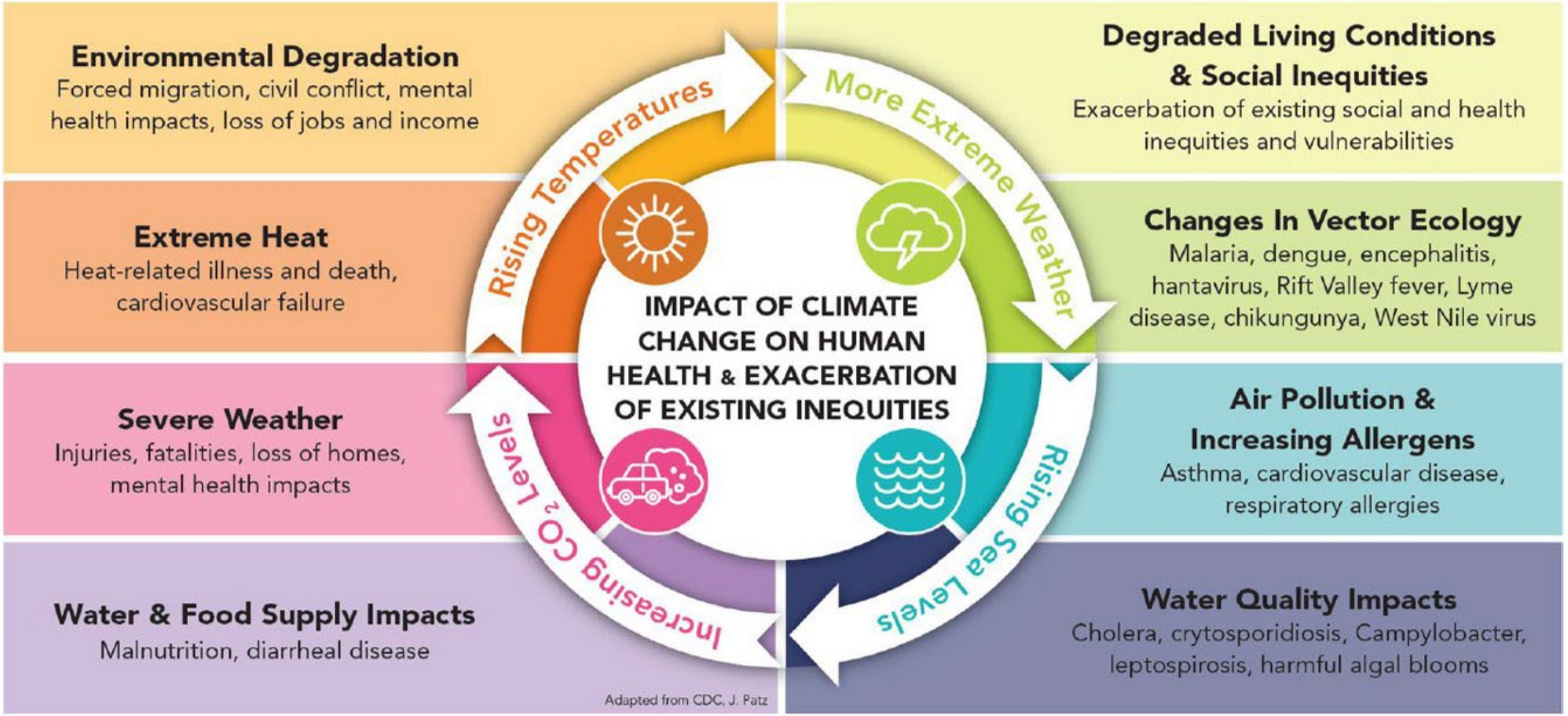
Global environmental impacts of climate change



Global environmental impacts of climate change



Global social impacts of climate change



This is a hard-hitting film about climate vulnerability and inequality

How climate change is making inequality worse, especially for children

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Carbon map

1.) Follow the link to the carbon map online tool

2.) Watch the introductory video explaining how the tool works

3.) Browse categories under the **responsibility tab** (avoid vulnerability for now) – **what does this tell you about the global distribution of responsibility for climate change?**

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Exploring responsibility…

We have identified the causes and consequences of climate change. The next step is to understand how responsibility for climate change and climate impacts varies between nations based on both historical and current emissions.

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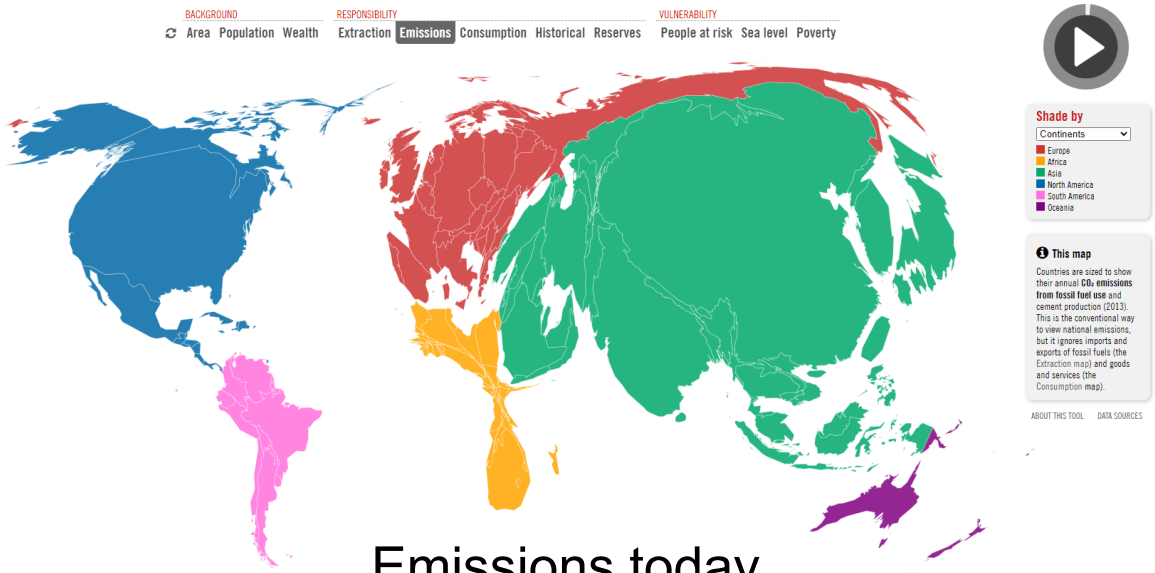
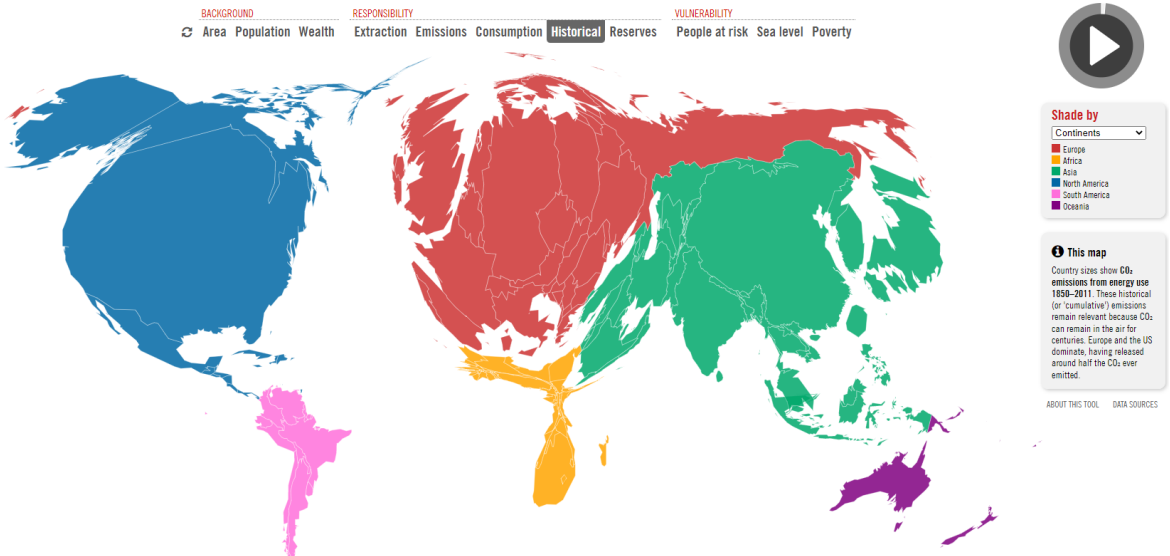


Emissions today



Historical emissions

People at risk

Discussion

‘The world's wealthiest 1% produce double the combined carbon emissions of the poorest 50%.’ Yet people from developing countries are most at risk to the impacts of climate change.

Report from the Cambridge Sustainability Commission April 2021

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UK social impacts of climate change

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Understanding climate justice

Climate justice is a concept that recognises the **ethical dimensions of climate change.**

It recognises that **those** ... **affected** ... **climate change** ... causing the

... **y on** ... **sponsible** for ... missions and **provide solu**... change that **protect vulnerable nations and/or groups** from its worst effects.

By participating in this training you are gaining the knowledge and skills to have a positive impact and be part of the solution.

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5-minute break time!

Photo credit: Rumman Amin (Unsplash.com)

Climate change: future scenarios

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Activity one: troubled future

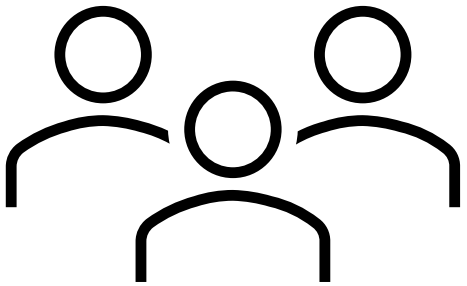
How did we get here? Consider what actions were (or were not) taken that led us to this troubled future.

In teams

1. **decide which five of these (in) actions contributed the most** to the troubled future scenario.

Take note of the five you decided on to feed back to main room.

There is no right or wrong answer.



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1. Lack of knowledge

Businesses, schools, universities and public institutions fail to educate about climate change. People don't understand what actions are needed to tackle climate change, leading to climate inaction.

2. Lack of political cooperation

The highest emitting nations withdraw from climate agreements, causing others to follow suit. Nations with the lowest emissions make up majority signatories.

3. Businesses fail to act

The costs of acting on climate change are deemed to be high. Businesses delay action on reducing emissions until it's too late.

4. Record number of flights

Demand for air travel grows exponentially as people are not offered high-speed rail alternatives. New airports and runways are built across the world resulting in billions of tonnes of carbon being released into the atmosphere.

5. Deforestation continues

Deforestation to clear land for livestock farming and to supply timber at low costs continues. The planet's ability to sequester (absorb) carbon is severely limited.

6. Inequity at decision-making levels

Climate policies fail to account for how climate change impacts diverse groups of people. The knowledge and expertise of diverse groups are not accessed and climate policies are inefficient and misguided.

7. Fossil fuel subsidies

Governments continue to subsidise the costs of fossil fuels whilst failing to subsidise the costs of clean energy. Fossil fuel production expands.

8. Lack of investment in innovation

Governments and investors fail to invest in innovative solutions to climate change. New technologies to reduce emissions fail to be adopted at scale.

9. Meat consumption increases globally

As economic growth continues, more people around the world consume meat everyday leading to an increase in intensive farming and unsustainable land use.

10. Developed nations fail to mobilise climate finance for developing nations

Nations that have contributed least to climate change suffer the worst impacts of it without the financial resource or technology to cope. Millions are displaced due to extreme weather events, famine, and conflict.

Activity two: positive future

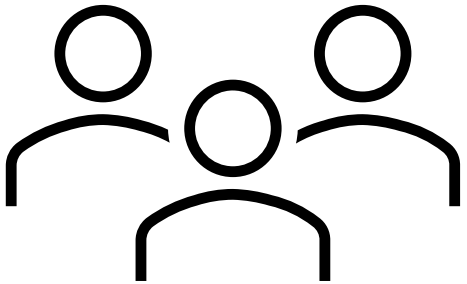
How did we get here? Consider what actions were taken that led us to this positive future.

In teams:

1. **Decide which five of these actions contributed the most** to the positive future scenario.

Take note of the five you decided on as a group to feed back to main room

There is not a right or wrong answer.



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1. Carbon Literacy for all

Businesses, schools, universities and public institutions commit to Carbon Literacy training for all. Sustainability is embedded into curriculums and staff training programmes.

2. Dietary overhaul

Historic reduction in meat consumption as plant-based diets are more widely adopted. Meat becomes valued as a premium product.

3. Protection and restoration of the world's forests

Millions of trees are planted globally. Forests remove huge quantities of CO2 from the atmosphere whilst also providing protection from high temperatures and extreme weather events. Deforestation is drastically reduced and sustainable agriculture practices are widely adopted.

4. Political cooperation with accountability

All nations sign up to science-based commitments that keep global warming to under 1.5-2 degrees compared to pre-industrial levels (current pledges limit warming to 2.4 degrees). Leaders are held to account over actions that result in severe environmental degradation.

5. Women are empowered

Equity of education and opportunity for women (especially with other intersecting inequalities) leads to better representation at decision making levels around climate change. More effective policies to tackle climate change, grounded in fairness and diverse experiences, are developed.

6. Innovation

New technologies create alternative ways of providing goods and services whilst producing far fewer carbon emissions.

7. Carbon capture and storage technology

Carbon capture and storage (CCS) technology is rolled out widely, reducing atmospheric levels of carbon dioxide considerably. The development of CCS sites are funded by the most polluting industries and jobs are created as CCS is more widely used.

8. Sustainable travel

Infrastructure for and ownership of electric vehicles becomes commonplace around the world, and high-speed rail alternatives replace the need for air travel in many cases.

9. Developed countries deliver climate finance to developing countries

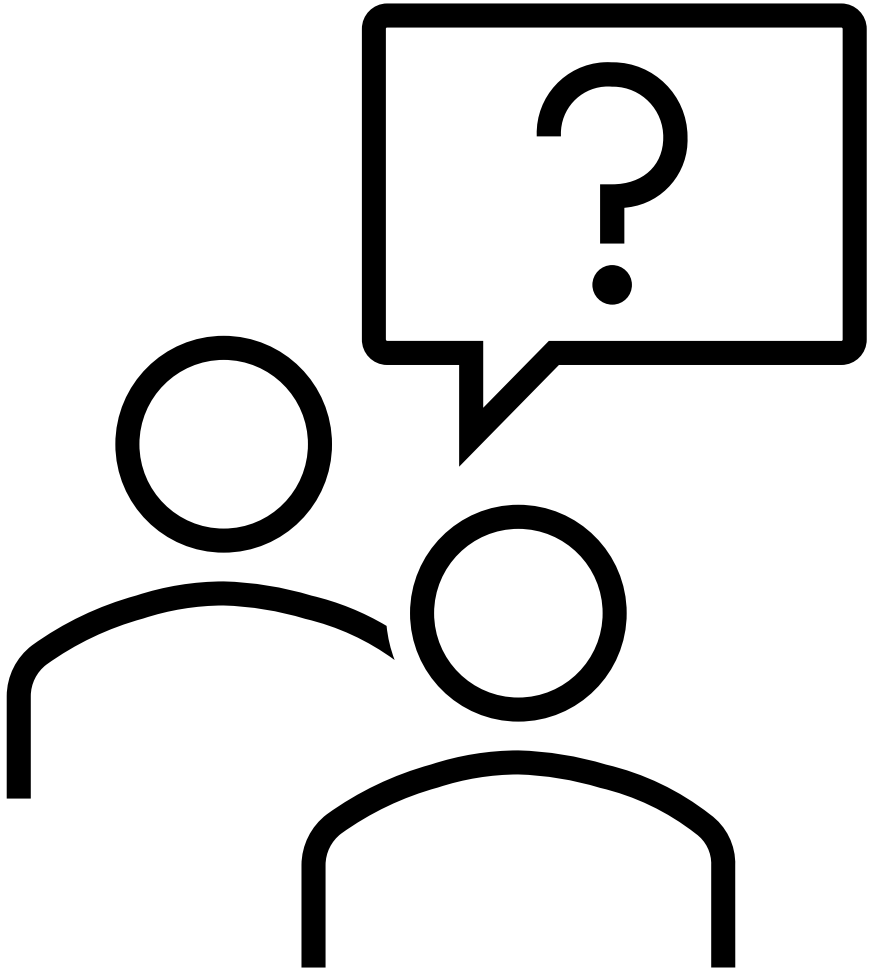
Richer nations that have contributed the most to the climate crisis deliver funding to developing countries, increasing their resilience to the impacts of climate change.

10. Transition to renewable energy

Heating systems transition from use of gas boilers to electric alternatives like air-source heat pumps.

All electricity is generated from renewables as more solar and wind farms are created.

Climate quiz



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What is climate justice?

1. A concept that recognises the ethical dimensions of climate change.
2. A concept that suggests all countries will be affected in the same way by climate change
3. An annual United Nations climate summit

Add your answer into the chat box

Historically, which countries have produced the most carbon emissions?

1. Developing countries
2. Developed countries
3. All countries have contributed equally

Add your answer into the chat box

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Which countries are most at risk of the impacts of climate change?

1. Developing countries
2. Developed countries
3. All countries are at equal risk

Add your answer into the chat box

Which of these actions has a negative impact on the climate?

1. An increase in tree planting initiatives
2. A reduction in meat consumption
3. An increase in the number of domestic flights taken

Add your answer into the chat box

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Which of these actions has a positive impact on the climate?

1. Deforestation
2. Transitioning to renewable energy sources
3. Increasing fossil fuel use

Add your answer into the chat box

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Next session Monday 4th December we will:

- Learn about action on climate change (including mitigation and adaptation) at various scales
- Compare high and low carbon footprint actions
- Devise high impact individual strategies
- Consider ‘multisolving’ climate solutions
- Devise high impact group strategies

If you have any questions about the course, you can contact Gill g.slater@worc.ac.uk, ruth.whittaker@sanctuary.co.uk

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Recommended reading

Our World in Data: CO2 emissions (Our World in Data)

How calls for climate justice are shaking the world (BBC)

https://vimeo.com/790965733 Al Gore at the recent Economic Forum Analogy of treating the atmosphere as an open sewer!

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